



Department of History and Civilization

Monetary Thought in Islamic and Christian scholars (13th-16th century): A comparative perspective on debasement and the rise of the quantity theory of money

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ABSTRACT

This study examines conceptions about money, its value, and management in the works of Islamic and Christian scholars in the late medieval and early modern Mediterranean from a comparative perspective. By including both Islamic and Christian scholars, while also examining particular cases of monetary management, its main contribution is to offer a more comprehensive view of the process of conceptual change in relation to money that developed in the late middle ages. The main objectives are to compare developments in monetary thinking in different contexts and cultural traditions, to detect changing patterns in the conceptualisation of money, assess their relevance for the history of monetary conceptions and give an account of how such conceptual changes took place. The focus is on a concrete set of issues considered crucial to the emergence of monetary thought and of the quantity theory of money: the nature of money; what (and who) defines its value and how; and what are the factors that affect the value of money (quantity of metal, its relation to prices and the purchasing power of money). Thus, the first part of the dissertation provides an overview of how money and its value were conceived in the medieval Mediterranean. It outlines the roots of a common Aristotelian commentary tradition and accounts for the elaboration of different discourses about the relationship between law, money and political authorities in relation to the debasement of money. The second part of the study explores the impact that dramatic increases in the supply of certain metals had on the conceptualisation of money, prices and understandings of the relationship between them. It examines proposals for monetary management arising in contexts of small change inflation in Florence and Cairo, and compares them with the emergence of the quantity theory in the context of the price revolution of the 16th century. The monetary proposals of an Egyptian scholar, al-Maqrīzī, at the beginning of the 15th century deserve particular attention in this respect.

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INTRODUCTION

Approaches to and views on monetary issues in the Mediterranean gradually transformed between the late Middle Ages and the early modern period, along with other changes that its societies and economies were undergoing at that time. This study examines conceptions about money, its value, and management in the works of Islamic and Christian scholars in the late medieval and early modern Mediterranean.

The monetary problems and issues that arose in those centuries were directly related to the increase of “money economies”, expressed as an increase in the relative volume of money payments within a particular context, at different levels and degrees.¹ While the Islamic world and parts of the western, southern and eastern areas of the Mediterranean connected to it had been quite monetized during most of the medieval period, the rest of Europe experienced a progressive expansion of monetary exchanges only in the last centuries of that period.

The monetization of the economy in the late medieval period and the increasing use of small change, while higher-value coins were hoarded, traded or exported to other regions, posed interesting challenges and questions about monetary management and resulted in noteworthy proposals about how to control or monitor the monetary base, as well as how to conceptualise the use and role of money in the economy. Ups and downs in metal supplies had important consequences for prices and for the value of coins. Monetary authorities had to struggle between the increasing need for monetary units and the requirements of war and state administration, on the one hand, and the necessity of keeping a stable currency in order to sustain the economic and commercial structure of their societies, on the other. It was difficult to find an equilibrium between the need for money, and thus for larger quantities of metals, and the monetary stability required by patrimonial states, commerce and markets. In a metal-based monetary system, metals continued to flow between regions, which made any attempt at monetary stability or control over coins almost impossible.² At the same time, and as a result

¹ I am using the concept “money economies” following Postan’s explanation of the term. See M. M. Postan, “The Rise of a Money Economy,” *Economic History Review* XIV (1944).

² “Hard money economies” or economies in which the monetary system is based on coins valued according to their intrinsic metallic value (the weight of precious metal they contained); John Day, “The Great Bullion Famine of the Fifteenth Century,” *Past and Present* 79 (1978), p. 1; In that sense, money supply or monetary

of the “monetization” of the economy, or the increase in monetary exchanges, credit and financial instruments were undergoing important developments in spite of the existence of diverse religious and moral constraints against the practice of usury. All this created an interesting environment in which to study the problems which authorities faced in monetary management and the discussions scholars consequently developed on monetary issues.

Sargent and Velde, and before them Cipolla and others, have already linked the transformations in monetary theory brought about by the Renaissance to the monetary complications and the broader monetization of exchanges that followed 1200.³ However, they do not take into consideration the fact that for the Mediterranean region as a whole the date 1200 did not have the relevance, nor cause the change in monetization patterns that it did for the central and western regions of Europe. As mentioned, the southern, western and eastern parts of the Mediterranean had for centuries either belonged to the Islamic world or been connected with it, sharing patterns of monetary circulation that, also through commerce, linked it with the more monetarily developed or complex areas of Asia.⁴ The Iberian Peninsula had been part of the Islamic world from the 8th to the 15th century, a period in which the frontiers between the Islamic and the Christian kingdoms were blurred and shifting regularly. The south of the Italic Peninsula was part of the Islamic world until the 11th century, and maintained the connection during the Norman period and thanks to the intensive commerce developed from the Italian cities with the Middle East, particularly Venice and Genoa.⁵

Therefore, this thesis considers developments in monetary issues that took place in the Mediterranean as a whole. The Mediterranean of the late Medieval and Early Modern period

base is then basically determined by the quantity of metal in circulation. Mercantile credit and deposit banking, although expanding, had little impact on the definition of money and the monetary base. According to Day, only at the end of the 14th and 15th centuries did banking money have much more influence, but in terms of introducing elasticity in the money supply, not in quantitative terms (p. 2).

³ Thomas J. Sargent and François R. Velde, *The Big Problem of Small Change* (Princeton: Princeton University Press, 2002), pp. 72 & 78. Carlo M. Cipolla, "The Big Problem of the Petty Coins," in *Money, Prices, and Civilization in the Mediterranean World* (Princeton: Princeton University Press, 1956). Kaye offered an interesting appraisal about how trade and the new transactions brought by a more commercialized society contributed to abstract and mathematical speculations on money matters. See Joel Kaye, *Economy and Nature in the Fourteenth Century: Money, Market Exchange, and the Emergence of Scientific Thought* (New York: Cambridge University Press, 1998).

⁴ Frank Perlin, "Monetary Revolution and Societal Change in the Late Medieval and Early Modern Times -- a Review Article," *The Journal of Asian Studies* 45, no. 5 (1986).

⁵ Besides, contacts between Baghdad and Byzantium lasted even till the latter was conquest by the Turks. James Kritzeck, "Moslem-Christian Understanding in Medieval Times: A Review Article," *Comparative Studies in Society and History* 4, no. 3 (1962), p. 392.

may be considered as an economic unit, in spite of its cultural, political and social diversity, as Braudel considered the Mediterranean of the 16th century;⁶ an economic unit that when approached more closely was formed of a complex net of different circuits. These circuits not only interacted and sometimes overlapped but were dynamic and changed over time. As a result, certain common or similar phenomena appeared in very different places in the Mediterranean.⁷

Concerning monetary matters and flows, the Mediterranean can be considered to have formed a unit as well, a unit also made up of different circuits connected to each other, and opened to the rest of the world, as Watson pointed out, and so subject to pressures and different tensions from those other regions.⁸

Without revisiting the whole set of debates that emerged in the literature after the “Pirenne Thesis”, it is safe to assert that even if the level of commercial exchanges within the Mediterranean passed through different phases of intensity and developed in different patterns depending on the regions, the Mediterranean maintained its main feature as centre or crossroads for commercial exchanges during most of the medieval period.⁹

⁶ “Au XVI^e siècle, la Méditerranée est donc économiquement une, mais divisée politiquement, socialement, culturellement: sont unie économique traverse, survole ses diversités.” Fernand Braudel, “En Méditerranée: Les Siècles De Gloire Matérielle,” in *Autour De La Méditerranée: Les Écrits De Fernand Braudel*, ed. Roselyne/Braudel de Ayala, Paul (Paris: Éditions de Fallois, 1996), p. 448.

⁷ In that sense, we will try to follow Braudel’s suggestion about continuing researching on the difference, but within the common. “Ces pays se ressemblent, main ne sont jamais identiques, et, ici comme ailleurs, la recherche de la différence, de ce que l’on n’a pas, est primordiale;” Ibid., p. 449; I think in this way we can pursue two purposes: first, to disclose some common patterns in economic discourses and practices that has not been sufficiently examined for the Mediterranean of the period as a whole; and second, in order not to fall into previous misconceptions between the difference and the common, to examine the differences within those common spaces, as cannot be otherwise considering the broad space and temporal frame we are using.

⁸ “For monetary matters, the two regions should be treated as a whole;” South Europe and Muslim countries “caught between two worlds” and “exposed to pulls on their money supplies from two sides.” A. M. Watson, “Back to Gold and Silver,” *Economic History Review* 2nd ser., no. xx (1967), pp. 1 & 34; an opened framework conformed by a “welter of interconnected processes.” Perlin, “Monetary Revolution and Societal Change in the Late Medieval and Early Modern Times -- a Review Article,” pp. 1042-43. See other set of studies arguing for the shores of the Mediterranean being “inextricably bound together,” among them Robert S. Lopez, “East and West in the Early Medieval Ages: Economic Relations,” in *The Shape of Medieval Monetary History* (London: Variorum Reprints, 1986).

⁹ Braudel corroborates this when saying that even in the highest moments of confrontation in the Mediterranean, merchant ships were able to cross and surmount those conflicts. “Mais cette ligne de feu, les navires marchands la traversent tous les jours” Braudel, “En Méditerranée: Les Siècles De Gloire Matérielle,” p. 449. For a review of the extensively contested “Pirenne Thesis” that commerce, and economy in general, collapsed in 8th-century Europe as result of the Islamic expansion, see: David M. Nicholas, “Pirenne, Henri (1862-1930)” in *The Oxford Encyclopedia of Economic History*, ed. Joel Mokyr (New York: Oxford University Press, 2003), p. 196; Andrew S. Ehrenkreutz, “Another Orientalist’s Remarks Concerning the Pirenne Thesis,” in *Monetary Change and Economic History in the Medieval Muslim World* (Aldershot: Ashgate Variorum, 1992), pp. 95-103; and also works by Cahen, Ashtor, Goitein and Lopez.

On one hand, as a result of the existence of certain commercial ties, we can trace certain areas of convergence between the economic practices which developed in the context of the three main religions of the Mediterranean. First, the emergence of common mediums of association and partnership – similar kinds of contracts and credit instruments; second, the reproduction of similar economic institutions, like the institutions regulating the markets, or the institutions and places hosting travellers and merchants, taxing trade, storing merchandise and housing economic dealings and transactions; and third, the existence of common judicial institutions and the convergence of developments in legislative bodies.¹⁰

On the other hand, as a result of the existence of certain monetary circuits connecting the regions of the Mediterranean, similar coins and means of exchange also emerged amongst them. The metals used were basically gold, silver, and copper, in different combinations and alloys, and they circulated within several routes that connected the Mediterranean regions and minting centers.¹¹ The structure of particular monetary systems changed with time and depended on the performance of the economy in each place and the commercial interaction with other regions.¹² Parallel “monetary revolutions” and “bullion famines” were observed

¹⁰ Within the bulk of literature on intellectual, institutional and cultural transmission, diffusion and borrowing, from juridical and contractual systems to the institutions regulating markets and intercultural exchanges, see: Gerald J. Blidstein, "Muhtasib and Shoter," in *Sobre La Vida Y Obra De Maimonides*, ed. J. Peláez del Rosal (Córdoba: Ediciones El Almendro, 1991), pp. 37-44; Claude Cahen, *El Islam: 1. Desde Los Origenes Hasta El Comienzo Del Imperio Otomano* (Madrid: SIGLO XXI de ESPAÑA EDITORES, 2002), pp. 94-96; Pedro Chalmeta Gendrán, "El "Señor Del Zoco" En España : Edades Media Y Moderna : Contribución Al Estudio De La Historia Del Mercado," (Madrid: Instituto Hispano-Arabe de Cultura, 1973), pp. 623-644; Olivia Remie Constable, *Housing the Stranger in the Mediterranean World: Lodging, Trade, and Travel in Late Antiquity and the Middle Ages* (Cambridge: Cambridge University Press, 2003); Thomas F. Glick, "Muhtasib and Mustasaf: A Case Study of Institutional Diffusion," *Viator* 2 (1971); Thomas F. Glick, "New Perspectives of the Hisba and Its Hispanic Derivatives," *Al-Qantara: Revista de Estudios Arabes* XIII (1992); Marjorie Grice-Hutchinson, *Early Economic Thought in Spain 1177-1740* (London: George Allen & Unwin, 1978), pp. 14-15; Benjamin R. Foster, "Agoranomos and Muhtasib," *Journal of Economic and Social History of the Orient* 13, no. 2 (1970), pp. 130-31; John H. Pryor, "The Origins of the Commenda Contract," *Speculum* 52, no. 1 (1977), p. 6; Maxime Rodinson, "Prefacio," in *El "Señor Del Zoco" En España : Edades Media Y Moderna : Contribución Al Estudio De La Historia Del Mercado*, Pedro Chalmeta (Madrid: Instituto Hispano-Arabe de Cultura, 1973), pp. XXXIX-LXII; Abraham L. Udovitch, "At the Origins of the Western Commenda: Islam, Israel, Byzantium," *Speculum* 37, no. 2 (1962).

¹¹ Gold arrived from Ghana to Egypt and then Genoa, passing northwards by al-Andalus and allowing in the 13th century for minting gold coins in areas previously dominated by silver sterling. From central European silver mints, silver and silver coins were sent for the trade with North Africa and Middle East. These movements of precious metals continue till the end of the medieval period, even if “clandestine” sometimes. The direction of some flows changed slightly at the end of the 14th century, when the Venetian ducat began to circulate and be counterfeited in Near East, and gold moved from Europe to the Near East, considered connected with the starting of the “European” economic “dominance” in the Mediterranean. The “gold of Ghana” kept arriving in Genoa during all the 15th century as well, and from Genoa, and Venice, German silver kept flowing to Africa and the Near East. Watson, "Back to Gold and Silver," pp. 14-21. See also works by Blanchard.

¹² Formed by three main monetary areas: Islamic world, Byzantium and the Christian kingdoms, which may be mingled into at least another five, since south of Spain with Italian cities were interconnect with Islamic areas in

between the northern and southeastern parts of the Mediterranean, as Watson or Day asserted.¹³

Both the significant level of commercial and monetary exchanges between different parts of the Mediterranean during those centuries and the existence of shared religious and intellectual traditions between its shores, call for a comparative perspective when analyzing the development of ideas about money and the emergence of monetary thought in this period. The historiographies on the history of economic ideas, history of science, institutional diffusion, cultural transfer and transmission of knowledge are all turning to the Mediterranean as a framework of reference in the medieval and late medieval period. In economic history, the study of commercial and monetary flows from medieval to early modern periods have led, as well, to a progressive awareness of the Mediterranean as a world-economy, as in Abu-Lughod, or a world-as-a-whole, as in Braudel.¹⁴

Therefore, I will take the Mediterranean as the framework of analysis for this research: a framework in which a set of connected histories, common problems related to money and monetary movements, and the existence of a set of shared values, institutions and intellectual and religious traditions shaped the patterns through which ideas about money developed.

Several characteristics of and gaps in the literature also call for a comparative and more comprehensive study of monetary ideas in the late medieval Mediterranean. First of all, no specific monographs about the medieval and late medieval Mediterranean have been dedicated to the study of ideas about money, the development of conceptions about the role of money in the economy and, hence, its management. Secondly, the history of economic thought has traditionally placed the so-called origins of monetarism in the speculations about

terms of metal circuits, use of coins, and silver-gold ratio performance. Connections to be maintained at least to the 15th century and reproduced in the 16th century with the monetary flows through out the channel: America-Seville-Genoa and so on. Aragon, Catalonia, Sicily and even the Languedoc regions were connected in the North-African monetary circuit, despite belonging to the sterling area of influence.

¹³ Only 75 years before golden coins started being minted in Italy, the minting of silver coins had resumed in Near East, with the minting of the Ayyubid *dirham* in 1174/5, once recovered from the silver famine of the 11th century. The resuming of silver minting was partly due to the flow of silver arriving from Europe, either through trade or the Crusades. Watson, "Back to Gold and Silver.", pp. 5, 8-10; Byzantium adopted silver as base for its monetary system at the same time. Day, "The Great Bullion Famine of the Fifteenth Century.", pp. 5, 8-9. Later on, the minting of gold coins in Europe and the disruption of patterns in gold supply from Africa, gave place to a gold famine that spread, as well, to the Near East during the 14th to the 16th century. (Watson, 1967, p. 11). For the "European" bullion famine, see article about Bullion in the Oxford Encyclopedia of Economic History. Renate Pieper, "Bullion," in *Oxford Encyclopedia of Economic History* (Oxford: 2003)., p. 295.

¹⁴ Janet L. Abu-Lughod, *Before European Hegemony. The World System A. D. 1250-1350* (New York: Oxford University Press, 1989).; See also O. R. Constable's similar approach: Constable, *Housing the Stranger in the Mediterranean World: Lodging, Trade, and Travel in Late Antiquity and the Middle Ages*.

money and prices that emerged during the sixteenth-century revolution of prices, while monetary proposals of mid-fourteenth century Christian scholars facing problems related to the debasement of money have been considered to be the earliest monetary works written. Thirdly, economic history has hinted that fourteenth-century experiences with small change in Florence raised awareness of the quantity dimension in analyzing the value of money. It therefore appears important to investigate what was the status of those conceptions in the Mediterranean in previous centuries and whether that background played a role in those later intellectual developments. Finally, the literature on medieval economic thought has also tended to focus on particular geographical or cultural units in isolation.¹⁵

In this context, drawing together developments in different parts of the Mediterranean was taken as a primary challenge to face in this study. This, moreover, is particularly appropriate for the study of monetary issues given that, as noted above, the Mediterranean formed a monetary unit during those centuries. Aware, nevertheless, of the impossibility of including all authors, cases and dimensions necessary for providing a complete study of the evolution of monetary concepts in the Mediterranean, a certain amount of selection was essential.

A first choice was made to compare basically scholastic works: texts of Islamic and Christian scholars, philosophers, theologians and jurists who wrote about money.¹⁶ That choice meant a focus basically on high culture or bookish knowledge, which, although restrictive, I considered a necessary initial step, given the lack of comparative studies on the field.

Secondly, on the basis of the literature on both Islamic and Christian scholastic economic thought, a preliminary selection was made of authors and texts dealing with money

¹⁵ With the exception of some more comprehensive and comparative works such as those of: and Grice-Hutchinson, *Early Economic Thought in Spain 1177-1740*.; S. Todd Lowry, ed., *Pre-Classical Economic Thought: From the Greeks to the Scottish Enlightenment* (Boston: Kluwer Academic Publishers, 1987).; M. Yassine Essid, *At-Tadbir Oikonomia. Pour Une Critique Des Origines De La Pensée Économique Arabo-Musulmane* (Tunis: Fondation nationale de la recherche scientifique, 1993).; M. Yassine Essid, *A Critique of the Origins of the Islamic Economic Thought* (New York: E. J. Brill, 1995).; Louis Baeck, *The Mediterranean Tradition in Economic Thought* (London: Routledge, 1994).

¹⁶ Cruz Hernández speaks about three scholastics: the Jewish, Christian and Muslim scholastics, all of them inheritors of the medieval neoplatonic synthesis. Miguel Cruz Hernández, *Los Límites Del Aristotelismo De Ibn Rusd* (Paris: Les Belles Lettres, 1978)., p. 45. I had to leave out Jewish scholastics for practical and linguistic reasons, although some of them inevitably appear in some references.

in the Mediterranean during the period.¹⁷ Geographically, they consist of texts written mainly in Egypt, Syria, Tunisia, al-Andalus, Castile, Italy and France, between the 13th and 16th centuries. In the case of the Islamic scholars, given that the literature on these authors was less developed, a more thorough investigation was required to select, first, those texts dealing with economic issues in general, in order to later determine which dealt in particular with money. In the appendix, I offer a selection of those texts.

An important challenge to face, in this respect, was the heterogeneity of authors and texts to study. On both the Islamic and the Christian sides, scholars who dealt with money did so from different points of view and in relation to different fields: in moral, theological or philosophical speculations; in juridical, practical or technical terms, in Roman and canonical law, in manuals for the administration of the market or manuals for merchants; in political writings or pamphlets (where money is considered as a symbol of power); and in texts on virtue or the behaviour of the prince. The conception of money or the aspects of money they dealt with depended on their field, approach and motivation and changed along with social, economic and political developments, an aspect that, in fact, is a main point of interest of the research.

For practical reasons, I decided not to focus on other genres, such as literature on travels, handbooks for merchants and, with a few exceptions, mirrors for princes or similar political treatises. Within the Islamic context, the texts and authors chosen belong mainly to the commentary tradition of Aristotle and the literature on *ḥisbah* or the institution in charge of the supervision of markets in Islamic cities.

For the authors and texts that were most relevant to the issues under discussion, I referred to the original texts. These included writings in Arabic, Latin and the Romance languages. Those sections and concepts in the Arabic texts whose translation was vital to explain a number of the theoretical developments on money were carefully checked. Where, for practical or linguistic reasons, reading the original was not feasible, I used translations, particularly for those texts written in Greek or Persian. I believe that the overall sample of texts and the cases of monetary management, discussed in relation to their economic and

¹⁷ I use the adjective Islamic and Christian in order to refer to the religious and cultural context in which they emerged. An alternative was Arab or Latin, but could lead to misunderstanding concerning the language in which they wrote.

political contexts, sheds light on the development of certain key monetary conceptions during the period.

The, third and final choice of texts was made in respect of a series of concrete monetary questions related to the problematic of interest to this study – the emergence of the quantity dimension in analyses of monetary inflation. Most studies about medieval economic thought deal with the ideas of particular Christian and Islamic scholastic thinkers or particular intellectual schools. Those monographs which have focused on thematic issues have examined just price, social justice or usury in these authors, and the development of finance, usually in relation to the origins of capitalism and the emergence of positive attitudes towards commerce and trade.¹⁸ Although undoubtedly related to the idea of money, as such, and its evolution, I do not examine issues such as just price, usury or attitudes to wealth or property. Those issues form, nevertheless, a set of significant commonplaces in the history of ideas in the medieval Mediterranean, and will necessarily appear at certain moments in the analysis. I have decided to focus on the conception of money, not in an inclusive way – since money in general is related to a whole and extensive series of other issues, in turn related to the organization of societies – but to a concrete set of issues that I consider as crucial to the emergence of monetary thought and of the quantity theory of money in the 16th century.

Two aspects will be considered in particular. The first is the role which metal supplies, not only of gold and silver but also of copper, played in shaping monetary thinking, as Cipolla, and later Sargent and Velde, pointed out. Copper flows distorted the circulation of petty coins in late fourteenth-century Italy, and prompted some early appraisals about the impact of the quantity of metals on the value of money. The second aspect to be considered is the distinction between the debasement and the depreciation of a currency. Debasement or devaluation of a currency is that fall in the value of money that is introduced by monetary

¹⁸ Langholm analyzes the economic ideas of medieval schools according to schools and ecclesiastic orders, examining the then-current ideas about usury, trade and money in each author: Odd Langholm, "Wealth and Money in the Aristotelian Tradition: A Study in Scholastic Economic Sources," (New York: Columbia University Press, 1983).; and Odd Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350* (Leiden: Brill, 1992).. Bazzichi, Spicciani et al. have focused on the monetary ideas of the Franciscan order in relation to the question of usury and the emergence of the concept of capital: Oreste Bazzichi, "Teorie Monetarie Francescane Nel Tardo Medioevo," *Rivista di Politica Economica* 77, no. 49-78 (1987).; Amleto Spicciani, "Capitale E Interesse Tra Mercatura E Povertà Nei Teologi E Canonisti Dei Secoli Xiii-Xv," (Roma: Jouvence, 1990).. The literature on usury is extensive as is that which explores other schools such as the school of Salamanca (see Chapter Five). An exception to this is Wood, who makes a compilation of medieval economic ideas for different areas, including a particular section on money and another about weights, measures, coinage and sovereignty: Diana Wood, *Medieval Economic Thought* (Cambridge: Cambridge University Press, 2002)..

authorities (in physical terms; that is, changes in the amount of precious metals used in its minting, or in nominal terms; changes in its value in relation to the money of account or other coins). Depreciation of a coin is that fall in the value of money that results from changes in its supply or demand. Depreciation affected not only the value of the coin as such but also the purchasing power of money (its value in relation to other commodities), as the quantity theory of money came to explain. The first notions about the quantity theory of money in the 16th century have been seen as challenging previous discourses that related inflation to the debasement of money. The quantity theory pointed instead to the depreciation of money and the consequent inflation due to an extra supply or quantity of metal. Therefore, the conceptual developments from those discourses that emphasised debasement to those arguments highlighting the role the quantity of money played in rising inflation deserve particular scrutiny.

Taking these two dimensions into consideration, the concrete aspects of money that I examine and trace in the texts of the various authors are those related to: the nature of money; what (and who) defines its value and how; and what are the factors that affect the value of money (questions related to the quantity of metal, its relation to prices and the purchasing power of money). An additional dimension examined is to what extent did the authors not only grasp or conceptualize those issues but, moreover, whether they took them into consideration for policy-making purposes.

Accordingly, this study has been organized into the following sections: First, an initial part containing two chapters dedicated to providing an overall picture of how money and its value was conceived in the medieval Mediterranean, taking into consideration the existence of a common Aristotelian commentary tradition around which the analysis of the origins of money and its nature developed, and the elaboration of different discourses about the relationship between law, money and political authorities.

In this respect, the first chapter examines conceptions about the nature of money and its value in the medieval period, in relation to the transmission of the Aristotelian texts on money and their assimilation in both the Islamic and Latin world, highlighting the construction and diffusion of a set of commonplaces among Islamic and Christian scholars. It also sets the context of the relationship between law and money in the monetary systems of the Islamic and Christian worlds. The second chapter, within this first part, offers a comparative study of statements and critiques in the Islamic and Latin world in relation to the

debasement of the coin by authorities. This involves a study of the changing balance of power – that is the redefinition of the right to define the value of money between the authorities and other economic and political actors – once rents were monetized. A preliminary set of conclusions then summarizes the findings of this first part.

The second part of the study is dedicated to exploring the impact that dramatic increases in the supply of certain metals had on money, prices and the way their relationship was understood. Consequently, the third chapter explores problems related to cases of small change and small change inflation in the late fourteenth-century Mediterranean area.¹⁹ It involves, thus, the study of the changing balance of power once not only rents but also daily exchanges and popular wages were monetized. In that context, I explore contemporary reactions to problems created by the influx of petty coins in both Florence and Egypt. Cipolla has shown that the Florentine experience with the problem of petty change, the case of the *quattrini*, brought to light the role played by the quantity of money in monetary management. Therefore, I compare that experience with a similar case, both in terms of the nature and consequences of the problem, which took place in Egypt only a few decades later, the case of the *fulūs*. As a result, I observe and contrast the arguments, ideas, and monetary proposals that were raised in both cases to manage the problem. The monetary proposals of al-Maqrīzī, Egyptian scholar who aimed to put an end to the crisis that followed the invasion of small low-value coins into Egypt, have recently received some attention in the literature. However, the quantity dimension of his proposals has not been fully recognized.

With the aim of shedding some light on that issue, the fourth chapter examines in detail the monetary arguments and proposals which al-Maqrīzī exposed in two treatises, composed at the beginning of the 15th century. I argue that his proposals not only took into consideration the quantity of money in defining its value, but also its purchasing power (hence, pointing out the quantity dimension of monetary inflation). This finding made it necessary to compare al-Maqrīzī's proposals, not only with the conceptions about monetary management found in the Florentine case but also with the emergence of the quantity theory of money in the 16th century.

¹⁹ What Cipolla called “the big problem of petty change” and later Sargent & Velde termed as the “big problem of small change;” Cipolla, “The Big Problem of the Petty Coins.”; and Sargent and Velde, *The Big Problem of Small Change*..

In this context, the fifth chapter reviews the emergence of the quantity theory of money during the mid-16th century. I discuss the different elements involved in the economic relationship conceptualised by the late scholastics of the School of Salamanca and France, and their evolution in time, in order to compare them with those arguments presented in the cases of the small change problem, and to be able to grasp the different conceptual developments involved in the process that led to the emergence of the quantity theory of money. The overall results are synthesized in the conclusions.

In sum, my dissertation examines conceptions about money, its value, and management in the works of Islamic and Christian scholars in the late medieval and early modern Mediterranean. The main contribution of the study is to offer a comparative panorama of the conceptual developments around the issue of money, its nature and the determinants of its value in the late Middle Ages. By including both Islamic and Christian scholars, the thesis offers a more comprehensive view of the process of change and diffusion of ideas than existing studies.

In that developmental process, which took place from the 13th to the 16th centuries, the objectives of the study are: first, to compare the developments in monetary thinking in different contexts and cultural traditions; second, to detect the changing patterns in conceptualising money and their relevance for the history of monetary conceptions; and third, to observe how gradual conceptual changes took place. Thus, I examine how certain conceptual innovations were introduced as a consequence of external material factors, such as metal supplies, experience with new economic and commercial situations, or structural changes in the circulation and use of money and rents, and how other innovations were more related to the transmission and diffusion of ideas. In this respect, the examination of particular cases of monetary management, such as those analysed in Chapter Three, in addition to the analysis of certain texts and authors in context, attempts to enrich the present study and avoid teleological approaches in the development of intellectual discourses.

This study may, thus, be classified within the history of economic thought, but it also incorporates certain elements and approaches of conceptual history. It traces how certain concepts or “commonplaces” crystallized in the writings and traditions of the Mediterranean,

and intertwined also with economic history, including the analysis of historical cases of monetary policy as well as the conceptual and historical context where the texts emerged.

Within the history of economic thought, methodological critiques have frequently focused on denouncing the traditional dominance of teleological approaches in the discipline. In that sense, the debate raised a parallel problematic to one that has been the focus of debate in the history of political thought over the last decade.²⁰ Critiques pointed out the problems of comparing theoretical works from various authors living in very different and temporally separated contexts, or trying to connect them through a stream of thought that usually existed only in the mind of the historian-narrator. The challenge posed was to reconsider that perhaps the thread that linked ideas or explained the evolution of ideas depended on other factors. Those criticisms gave birth to the separation in the history of economic ideas between what has been called the “absolutist” and “relative” approaches.²¹ The *absolutist* approach is said to be so because it takes into account the economic ideas as absolute or independent entities instead of relating them to a particular historical context and socio-economic framework. The term used by Baeck to name it is “retrospective approach” which helps to grasp in a better way its teleological character.²² The *relative* approach is linked to the linguistic turn and the methodological changes suggested by post-modern perspectives. Baeck terms it as the *episteme* approach, one that considers ideas to be historic-concrete-time products and not universal, rejecting the idea of a gradual accumulation of knowledge in history over time.²³ An author like Spicciiani, for example, could be included in the *relative* approach. Spicciiani argues that shortcomings in the interpretation and analysis of the economic thought of some

²⁰ I am referring particularly to the revision of methods and approaches arising among the debates of the Cambridge school and the whole literature about history of concepts. For a general appraisal see Hans Erich Bödeker, “Concept Meaning Discourse. Begriffsgeschichte,” in *History of Concepts: Comparative Perspectives*, ed. Iain Hampsher-Monk, Karin Tilmans, and Frank Van Vree (Amsterdam: Amsterdam University Press, 1998).; and Martin Van Gelderen, “Between Cambridge and Heidelberg. Concepts, Languages and Images in Intellectual History,” in *History of Concepts: Comparative Perspectives*, ed. Iain Hampsher-Monk, Karin Tilmans, and Frank Van Vree (Amsterdam: Amsterdam University Press, 1998)..

²¹ See Harry Landreth and David C. Colander, *History of Economic Thought* (Boston: Houghton Mifflin, 2002)., (chapt. 1); Piero V. Mini, *Philosophy & Economics: The Origins & Development of Economic Theory* (Gainesville: The University Presses of Florida, 1974)., pp. 1-13; and Martin Brofenbrenner, “The Structure of Revolutions in Economic Thought,” *History of Political Economy* 3, no. 1 (Spring) (1971)., pp. 136-151.

²² Examples of that “retrospective” approach according to Baeck are the works by J. Gislain (1991) and J. M. Servet (1991). Baeck, *The Mediterranean Tradition in Economic Thought*., p. 15.

²³ The label *episteme* comes from Foucault’s (1966, 1969) thesis that ideas and doctrines interlocked in the intellectual climate of the time, its *episteme* (epistemological ideal-type of an epoch). Baeck divides the “retrospective approach” in two branches: material infrastructure determinism and ideological superstructure determinism. Among them, Baeck also speaks of radical relativism the one represented by Dasgupta. See also the work by K. Pribam (1983). *Ibid.* p. 16.

early scholars derives from the way those works have been read, without placing them in a context or in cultural reality.²⁴

A second set of critiques has been made of the Euro-centric approach of the discipline and its failure to include the contributions that other cultures and regions made to the history of economic thought.²⁵ The approach pursued in this thesis differs from those analyses that have sought to define the superiority of a society, country or economy over others, in one direction or the other. This kind of analysis appeared frequently in the literature on the origins of capitalism, trade or the economic and political development of European regions, and was related to the noted Euro-centric or Anglo Saxon-centric perspective. Different approaches have been used to measure that superiority, improvement or advantage, while different types of rhetoric have also been employed to explain how one country or region grew at the expense of others.²⁶ Indeed, the dominance of Euro-centric perspectives in some major manuals and encyclopedias on economic history became an initial difficulty in launching this study, since I had to rely on a very heterogeneous literature both in content and level of development.²⁷

²⁴ Spicciiani, "Capitale E Interesse Tra Mercatura E Povertà Nei Teologi E Canonisti Dei Secoli Xiii-Xv.", pp. 175-76.

²⁵ See thesis of the "great gap" posed by Ghazanfar: S. M. Ghazanfar, "History of Economic Thought: The Schumpeterian 'Great Gap', the 'Lost' Arab-Islamic Legacy, and the Literature Gap," *Journal of Islamic Studies* 6, no. 2 (1995)..

²⁶ Such rhetoric is frequent in works such as, for example, Miskimin's Harry A. Miskimin, *The Economy of Early Renaissance in Europe, 1300-1460* (Cambridge: Cambridge University Press, 1975).. Concerning the use of notions of "superiority," "progress," "success", or "ascent" I am referring to works such as: William Hardy McNeill, *The Rise of the West: A History of the Human Community* (Chicago: Chicago University Press, 1963).; E. L. Jones, *The European Miracle* (Cambridge: Cambridge University Press, 1981).; Karl Leyser, *The Ascent of Latin Europe: An Inaugural Lecture Delivered before the University of Oxford on 7 November 1984* (Oxford [England]: Clarendon Press, 1986).; or Meir Kohn, *The Origins of Western Economic Success: Commerce, Finance, and Government in Pre-Industrial Europe* (Dartmouth, NH: Dartmouth College, 2001).. Abu-Lughod has proved to find those, even if unconscious, ethno or eurocentric approaches even in classical authors with broader perspectives as Wallerstein and Braudel. Abu-Lughod, *Before European Hegemony. The World System A. D. 1250-1350.*, pp. 9-11.

²⁷ Most of the manuals or Encyclopedias on world economic history, even the Oxford Encyclopedia of Economic History or the Cambridge, maintain quite a Eurocentric approach, as confirmed by reviewer and collaborator of this encyclopedia, Robert Whaples: "For example, the volume contains about 550 pages of entries on specific countries and regions. By my quick calculations, about 42 percent of those pages are on Europe, with another 6 percent on English-speaking countries. 29 percent is on Asia, 12 percent on Africa, and 10 percent on the Americas south of the U.S. Moreover, in many of the excellent articles covering broader topics (such as lotteries or canal transportation or immigration -- to randomly select a few), the focus is mainly on Europe and its offshoots. Likewise, the volume is loaded with quantitative tables and figures, but this evidence is noticeably and frustratingly thinner on non-Western subjects." However, Whaples adds that it is not due to a lack of unawareness to the problem but to "the state of the economic history field." See Robert Whaples, "The Oxford Encyclopedia of Economic History_. Oxford: Oxford University Press, 2003. Reviewed for Eh.Net," in *Reviews EH.NET* (<http://www.eh.net/BookReview> 2005)..

In contrast with this, as noted, a great many works point towards the fundamental role of intercultural transmission in the construction of new discourses and the reproduction of older ones, in disciplines and traditions of thought in the Mediterranean during the early modern period.²⁸ In fact, the analysis of the intense borrowing, import of technology, and transmission of knowledge that took place between cultures and regions from the Mediterranean to Europe, permits us to relativize certain discourses about the superiority of certain areas over others, and allows for a redefinition of national and continental categories and perhaps a fairer understanding of the intellectual or commercial revolutions which the historiography highlights.

In this thesis I endeavour to draw on the *relative* approach. My proposal in this respect is to treat the different scholars not only as inheritors of an accumulated knowledge and propegators of a particular tradition of thought but also as active agents in the assimilation of empirical historical knowledge. This empirical knowledge is, on one hand, part of the set of common knowledge accumulated over years of practical interaction with the economic reality and, on the other, a result of the particular experience of each author with the economic reality of his time. In that sense, despite being interested in the abstract formulations of that knowledge, I take into consideration the historical context of those scholars and how they interacted with their economic, political and social environments. On the other hand, I defend the viability and interest of comparing works and ideas by authors working in different times and places. This approach does not necessarily lead to the propagation of a teleological discourse nor need it imply that we are looking to the past to justify a particular path of evolution or the achievement of a certain stage by the discipline today.²⁹ Rather, such comparison permits not only a reconsideration of the thought of those earlier scholars, the differences between them and the common conceptual space they shared, but also enables a broader understanding of the development of monetary conceptions in this period.

²⁸ Literature on frontiers: "And just as men strayed across the frontier, so too did ideas, culture, merchandise and money... I have argued that frontiers unite as well as divide and that they demand socio-geographical definitions in terms of subcultures;" Agnus MacKay, *Money, Prices and Politics in Fifteenth-Century Castille* (London: Royal Historical Society, 1981), p. 7. See also: Agnus MacKay, *La España De La Edad Media. De La Frontera Hasta El Imperio (1000-1500)* (Madrid: Cátedra, 1991).

²⁹ As Mini pointed out "since we can interpret past ideas only from the standpoint of present ones, the present perforce gives the impression of sitting in judgment of the past." Mini, *Philosophy & Economics: The Origins & Development of Economic Theory*, p. vi. But we should look for more than impressions.

PART I: THE NATURE OF MONEY AND THE DEFINITION OF ITS VALUE IN THE LATIN AND ISLAMIC SCHOLASTIC TRADITIONS

The nature of money and how its value is defined determines not only scholars' understanding of money but also generates important corollaries about who has the power and control over the value of money. This first part of the dissertation includes an initial chapter that first provides a panoramic view of the intellectual background that, rooted in Aristotle, during the Middle Ages characterized basic monetary conceptions about money and its nature in both Christian and scholastic authors, and then explores the relationship in the Latin and Islamic world between law and money.

When the value was altered or its alloy deteriorated in context of monetized economies, new challenges would then emerge to conceptualize and understand the nature of money, as well as the factors and determinants of its value. Therefore, a second chapter in this first part of the dissertation compares the reactions and writings that emerged when political authorities altered or manipulated the value of money. The main purpose is to understand how the conception of money and its role in the economy was shaped and analyzed by different authors in relation to those issues.

CHAPTER I. THE NATURE OF MONEY AND ITS VALUE: MONEY AND LAW IN MEDIEVAL ISLAMIC AND CHRISTIAN CONTEXTS

In this first chapter I analyze how the nature of money and the definition of its value was understood among scholars or scholastics, mainly philosophers, theologians and jurists, in the medieval period, within both Islamic and Christian contexts. The transmission of Aristotelian texts on money, primarily the *Nicomachean Ethics* and the *Politics*, led to the emergence and development of a set of commonplaces about the nature and value of money in both the Islamic and Christian commentary traditions. In a first section I will present some of those common ideas, ending with a literature review and a revision of the transmission and reception of Aristotelian texts in the medieval period. In a second section I will examine the relationship between law and money within Islamic and Christian contexts, to reveal the main features of the monetary systems that set the background for later developments in monetary conceptions that will be analysed in the following chapters.

I.1. Medieval Conceptions of Money: a Shared Mediterranean Tradition Rooted in Aristotle

I.1.1. A literature revision on medieval monetary conceptions

From the 13th century on, most scholastic texts in the Latin world that dealt with monetary issues did so with respect to and on the basis of the commentaries of Aristotle's *Nicomachean Ethics* and *Politics*. The literature on Christian scholastic monetary thought, Aristotle and the commentary tradition of his texts have generated extensive debate about the nominal or metallic character of money in "the philosopher," and, consequently, in his commentators and the medieval period in general; debate which ultimately has no sound basis. The distinction between a "nominalist" conception of money, on the one hand, where money is a mere token, a sign, susceptible to arbitrary changes, and, on the other, a "metalist" conception, or commodity theory of money, where the value of money is an objective parameter dependent on the metal it is made of, is only an intellectual device that has been imposed over the medieval authors.¹ Those authors were entrenched in metallic monetary systems or hard

¹ Moreover, as Dupuy already pointed out, that distinction is only the reflection of nineteenth-century debates between those defending the monopoly and power of the state over currency and the advocates of a flexible international monetary system, based on a monetary standard fixed according to its intrinsic value, a silver or gold standard; Claude Dupuy, "Présentation," in *Traité Des Monnaies Et Autres Écrits Monétaires Du Xive Siècle* (Lyon: La Manufacture, 1989)., p. 18.

money economies, where the legal tender was defined by an actual coin of precious metal, and, so, necessarily saw these two aspects of money, metal and convention, combined, matched or connected in different ways.²

Since the writings of E. Bridrey, at the beginning of the 20th century, a nominalist conception of money has been ascribed to Plato, and a metalist conception to Aristotle.³ The Platonic conception of money was considered to dominate throughout most of the Middle Ages, via St. Agustin's writings, and, in monetary management, entailed conceding absolute power to the prince to change arbitrarily the value of money depending on his own financial needs.⁴ Only changes arising during the late medieval period – the resurgence of Roman law, the increase in commercial activity, the progressive monetization of economies, and, particularly, the reintroduction of Aristotelian texts – were thought to have introduced a progressive awareness of the metallic and commodity aspect of money. Moreover, according to Bridrey, it was essentially thanks to Buridan and Oresme's correct reading of Aristotle, in the second half of the 14th century, that the metalist conception of money was recognized, leading to the emergence of monetary thought.⁵ In contrast to these two later authors, classic scholastics were said to portray a nominalist conception of money due mainly to mistakes and misinterpretations made by Albert the Great and St. Thomas of Aquinas when reading Aristotle's texts on money. Landry, among other scholars, quickly contested Bridrey's thesis.⁶ At the same time, Usher claimed, that a "naïve commodity theory of money" did indeed dominate the Middle Ages.⁷ Nevertheless, Bridrey's was the account that became dominant in the history of monetary doctrines, through the works of Gonnard (1921 & 1935)

² Among others see discussion in Langholm about the two approaches and consequent theories: Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 192; and in André Lapidus, "Metal, Money, and the Prince: John Buridan and Nicholas Oresme after Thomas Aquinas," *History of Political Economy* 29, no. 1 (1997), pp. 22 & 24-25.

³ Emile Bridrey, *Nicole Oresme. La théorie de la monnaie au XIV^e siècle*, Caen, 1906. Quoted in Dupuy, "Présentation.", p. 17.

⁴ A "feudal conception" of money in Langhold terms; Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 193.

⁵ Ibid., p. 192.

⁶ Adolphe Landry, "Notes critiques sur le 'Nicole Oresme' de M. Bridrey," *Le Moyen Age* 22 (1909): 145-78, 146-8, note 3. Quoted in Ibid., p. 193. Dupuy mentions other reactions to Bridrey texts, among others, the article by Ernest Babelon: "Théorie féodale de la monnaie," (1908); and previous works by Charles Jourdan ("Les commencements de l'économie politique dans l'école du Moyen Age," *Bulletin de l'Académie des inscriptions et belles-lettres*, t. XXVIII, 1874-76, pp. 3-55) or Victor Brants (*Esquisses des théories économiques professées par les écrivains du XIII^e et XIV^e siècle*, Louvain, 1895), appearing, as well, after the edition in 1864 of Oresme's *Traité* by Wollowski. Dupuy, "Présentation.", p. 17.

⁷ A "naïve commodity concept of money" dominated the Middle Ages in spite of rulers' attempts to impose a "state theory of money" and control the value of money at their will. A. P. Usher, *Early History of Deposit Banking in Mediterranean Europe* (Cambridge, Mass.: 1943), p. 231.

in the French literature, and Schumpeter (1954) in the Anglo-Saxon.⁸ Buridan and Oresme came then to be regarded as the first scholars to put forward a “commodity theory of money,” and the first “monetarists,” representing a breakthrough in the nominalist medieval conception of money and the beginning of a new way of understanding monetary phenomena.⁹ Indeed, remnants of Bridrey-Schumpeter’s perspective survived in later works and debates.¹⁰

In relation to this perception of the history of monetary ideas, two points should be clear by now: First, Aristotle’s various statements about the nature and value of money are indeed susceptible to different interpretations. Certainly, either of the two conceptions of money may be supported by accepting some of Aristotle’s arguments and disregarding others. In 1961, Gordon contested Schumpeter’s position, claiming that the dominant approach in Aristotle was nominalist, and asserting that Aristotle does not differ that much from Plato concerning money matters.¹¹ Indeed, that last point was the conclusion Ibn Rushd had come to some centuries earlier.¹² Be that as it may, Gordon introduced some clarity into the discussion by distinguishing the nominalist and metalist aspects in Aristotle’s texts. This revealed that, with qualifications, the approach towards money in the *Nicomachean Ethics* is basically nominalist, while the *Politics* presents key elements for a metalist interpretation. In the *Politics*, the origins of money are said to be when certain precious metals, “like silver or iron and the like”, started being used as a medium of exchange to ease trade, due to the increasing labour division in complex societies, being first exchanged by weight and then minted.¹³ In the *Ethics*, Aristotle explains money as a unit of measure introduced to guarantee justice in exchanges by convention or law, *nomos*, and to guarantee exchanges in future.

⁸ And the thesis of Paul Harsin, mentioned in: Dupuy, “Présentation.”, p. 18.

⁹ Ibid., p. 35.

¹⁰ From Dupuy to Baeck, Wood (2002) and Urvoy (2004). See Baeck, *The Mediterranean Tradition in Economic Thought*, p. 169; Wood, *Medieval Economic Thought*; Dominique Urvoy, “Les Vues D’averroès Sur La Monnaie Comme Intermediaires Entre Celles D’aristote Et Celles Des Averroïstes Latins,” in *Averroes and the Aristotelian Heritage*, ed. Carmela Baffioni (Naples: Università degli Studi di Napoli “L’Orientale”, 2004).

¹¹ Barry Gordon, “Aristotle, Schumpeter, and the Metalist Tradition,” *The Quarterly Journal of Economics* 75, no. 4 (1961), p. 609.

¹² Concerning political issues, and, hence, money, Ibn Rushd regarded the ideas of the two philosophers, Aristotle and Plato, as basically alike. This can be seen in his Commentary on Plato’s *Republic* where Ibn Rushd considers Plato’s *Republica* as a substitute for Aristotle’s *Politics*, text to which he had no access, and complementary to the *Ethics*: “For gold and silver, as has been explained in the *Nicomachean Ethics*, are needed in...” plus a statement in the section on property and money (dirhams and dinars) that Ibn Rushd takes from the *Ethics* and adds to Plato’s *Republic*: “For it [money] is potentially all things pecuniary,” Abu al-Walid Mohammed Ibn Rushd, *Averroes Commentary on Plato's "Republic"*, trans. E. I. J. Rosenthal (Cambridge: Cambridge University Press, 1956), pp. 112, 148 & 212 (see n. 6). That section is not in Plato’s text (*Republica* 548a-552b): Plato, *La República* (Madrid: Alianza Editorial, 1988), pp. 467-475. Rosenthal, in fact contended that Ibn Rushd interpreted the *Republic* in the light of the *Ethics*. Abu al-Walid Mohammed Ibn Rushd, *Averroes Commentary on Plato's "Republic"* (Cambridge: Cambridge University Press, 1966), pp. 10 & 15.

¹³ Aristotle, *Politics*, trans. Jowett Benjamin (Kitchener: Batoche Books, 1999), pp. 14-5.

However, a few sentences in this text may be subject to different interpretations and are the main source for later confusion. One is the statement that says: “*but money has become by convention a sort of representative of demand (chreía); and this is why it has the name “money” (nomisma) – because it exists not by nature but by law (nomos) as it is in our power to change it and make it useless.*”¹⁴ Besides the possible translation of *chreía* as need or necessity instead of demand, or of *nomos* as social convention or custom instead of law, Aristotle’s statement leaves open the question regarding what may be changed (the value of the coin or its currency and circulation as legal tender) and who has that power to change it. In addition, a second statement in that same text, when speaking of the use of money for future transactions, says that: “*Now the same thing happens to money itself as to goods – it is not always worth the same, yet it tends to be steadier;*”¹⁵ which leaves open to interpretation whether or not money is like any other commodity, in the sense that its value may fluctuate in the markets. In sum, as mentioned, both the *Ethics* and the *Politics* taken together make Aristotle’s conception of money difficult to categorize. The common conclusion among later works, such as those by Langholm and Lapidus, is that, based on these texts, we cannot indeed with any certainty classify Aristotle’s position on money in either the nominalist or the metalist camp.¹⁶

This brings us to the second point requiring clarification: as with Aristotle, the approach towards money of Christian scholastics, even those so-called classical scholastics such as Albert and Aquinas, also may not be placed within either of these two distinct conceptions of money. Langholm has already proved that Bridrey’s claims about Albert’s nominalist misreading of Aristotle were valid if only his first commentary on the *Ethics* was evaluated.¹⁷ Contrasting other views, such as Lapidus’s standpoint for Aquinas’s nominalism in monetary issues, Langholm also asserted that indeed, neither scholastic authors such as Albert, Aquinas, nor their followers, such as Henry of Ghent, might be classified in either one

¹⁴ ———, *Nicomachean Ethics* (Kitchener: Batoche Books, 1999)., p. 80.

¹⁵ Ibid., p. 80. “*quamuis magis soleat permanere*” Aristotle, *Aristotelis Opera Cum Averrois Commentariis* (Venice: 1562)., p. 71 (D-E).

¹⁶ Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 264; They may lead simply to two divergent representations of money. Lapidus, “Metal, Money, and the Prince: John Buridan and Nicholas Oresme after Thomas Aquinas.”, p. 22.

¹⁷ Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, pp. 193-94.

or the other conception of money.¹⁸ As a result, Langholm's study revealed that the so-called "metalism" of Buridan and Oresme's monetary thought drew on previous works.¹⁹

Introducing medieval Islamic scholars into the picture, which is the main objective of this thesis - to compare the positions and approaches towards money of both Islamic and Christian scholastics at the end of the medieval period - yields a similar outcome. The literature on economic and monetary issues from the two sides, Christian and Islamic, has not always connected the various steps involved in the process of transmission and reception of Aristotelian ideas. In this respect, both sides of the historiography share common faults in focusing too much on their object of study and disregarding immediate predecessors. On one hand, the critical tradition that studied the monetary conceptions in the Christian commentaries of Aristotle has usually related them directly to the philosopher's texts without giving much consideration to the so-called "Arab intermediation." On the other hand, the relatively recent literature that has raised critiques in this respect and stimulated the study of the economic thought of medieval Islamic scholars, has been frequently dominated by a sort of apologetic spirit that, to highlight the role of Islamic philosophers and theologians as forerunners, failed to contrast that thought with previous Greek philosophers and intermediators.²⁰ The cases of Yassine Essid or Omar Akalay's works are an exception to this kind of flaw and apologetic spirit.²¹

¹⁸ Ibid., pp. 193 & 270. Lapidus, "Metal, Money, and the Prince: John Buridan and Nicholas Oresme after Thomas Aquinas.", pp. 25-27.

¹⁹ Langholm asserts indeed that most of these scholastics inherited from Aristotle a "metalist" conception of money. Langholm, "Wealth and Money in the Aristotelian Tradition: A Study in Scholastic Economic Sources.", pp. 162, 413.

²⁰ For the "great gap" thesis put forward by Ghazanfar in 1995, see: S. M. Ghazanfar, *Medieval Islamic Economic Thought: Filling the "Great Gap" in European Economics* (Curzon: Routledge, 2003), Ghazanfar, "History of Economic Thought: The Schumpeterian 'Great Gap', the 'Lost' Arab-Islamic Legacy, and the Literature Gap."; Regarding the particular problems I referred to, for example, Ghazanfar contended that al-Ghazālī foreshadows later explanations of the origins and functions of money, while the latter was indeed basically drawing from earlier works by Miskawayh, a tenth-century Islamic philosopher, and Bryson, neo-Pythagorean of the 1-2nd century. Ghazanfar, *Medieval Islamic Economic Thought: Filling the "Great Gap" in European Economics*, p. 43; Following them, Baeck, expounds the same argument, Baeck, *The Mediterranean Tradition in Economic Thought*, p. 111; Islahi also ascribes Gresham's law to some Islamic scholars, an economic relation known since antiquity; S. M. Ghazanfar and Abdul Azim Islahi, "Economic Thought of an Arab Scholastic: Abu Hamid Al-Ghazali," *History of Political Economy* 22, no. 2 (1990), pp. 386, 391-92. In a similar way, Hosseini, Hamid Hosseini, "Contributions of Medieval Muslim Scholars to the History of Economics and Their Impact: A Refutation of the Schumpeterian Great Gap," in *A Companion to the History of Economic Thought*, ed. John Bryan Davis, Jeff E. Biddle, and Warren J. Samuels (Malden: Blackwell Publishing, 2003); However, in later works, Islahi tries to correct this problem by pointing out that "by comparing the views of three philosophers – Miskawayh, Ibn Rushd and al-Dawwani, we find that they strictly based their ideas about money on Greek philosopher Aristotle and almost repeat the same thing." Abdul Azim Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis (11-905 A. H./632-1500 A. D.)* (Jeddah: Islamic Economics Research Centre, King Abdulaziz University, 2004), p. 49. Particular reference to Aristotle is introduced also in S. M. Ghazanfar, "The Economic Thought of Abu Hamid Al-Ghazali and St.

Following the works of Helmut Kitter (1919) and Martin Plessner (1928), who discovered the influence of Greek thought in Arabic literature through Bryson, Essid examined how the text of this neo-Pythagorean, working in Alexandria or Rome during the 1st or 2nd century, was a main vehicle of transmission to the Islamic world of Aristotelian economic concepts.²² Bryson's treatise, entitled in Arabic, *Fī Tadbīr ar-Rajul li-Manzil*, deals with the administration of the household and relates to the whole Greek tradition on *oikonomiká*, "books on household administration" (from *oiko* "house" and *némein* "administration, rule, management.")²³ Indeed the term *tadbīr*, as Essid clarifies, is wholly equivalent to the Greek *oikonomiká*, and the text follows closely the first book of Aristotle's *Politics*.²⁴

Thomas Aquinas: Some Comparative Parallels and Links," *History of Political Economy* 32, no. 4 (2000)., p.870.

²¹Essid, *A Critique of the Origins of the Islamic Economic Thought*. Akalay observes the impact of the "société marchande" in the works of Arab and Persian scholars. Omar Akalay, *Histoire De La Pensée Économique En Islam Du 8ème Au 12ème Siècle: Le Marchand Et Le Philosophe*, Histoire Et Perspectives Méditerranéennes (Paris: Harmattan, 1998)., p. 84

²² M. Yassine Essid, "Introduction," in *Penser L'économie [Fī-L-Tadbīr]* (Tunisia: Edition Media com., 1995). pp. 11-15. Little is known about this author, since even the spelling of his name is not clear. It appears as well as Bases, Brasius, Thrasius... (Essid, 1995, p. 182), or Brason, Brasson, Brussan, Abrussan; J. Spengler, "Economic Thought of Islam: Ibn Khaldén," *Comparative Studies in Society and History* VI, no. 3 (1963)., pp. 276, 278-281; and Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis (11-905 A. H./632-1500 A. D.)*, p. 21 (n. 3) In Sarton's encyclopaedia of science there is a Bryson of Heraclea in the 5th century b. C. that appears as Pythagorean mathematician. Later, when referring to Plessner's works, Sarton speaks of him as Neo-Pythagorean, as does Plessner. George Sarton, *Introduction to the History of Science (3 Vols.)* (Baltimore: Williams and Wilkins, 1975). (1927), vol. I, pp. 82 & 93.

²³ In addition to Xenophone and Aristotle, Antístenes wrote another *Oikonomiko*, and Plato commented also on the issue. See texts listed by Diógenes Laercio commented in Manuela García Valdés, "Introducción," in *Económicos. Seudo-Aristóteles* (Madrid: Editorial Gredos, 1984)., pp. 232-33. Trotz edited the Latin manuscript in 1921. Then Plessner edited the extending Arabic, Hebrew and Latin versions of the text in 1928. Essid and Seddik have edited the Arabic one with a French translation. Bryson, "Le Livre De Bryson Sur L'administration Domestique [Kitáb Bsrīs Fī Tadbīr Al-Rajul Li-Manzilihi]," in *Penser L'économie [Fī-L-Tadbīr]* (Tunisia: Edition Media com., 1995). The Greek original has not survived other than two fragments in the anthology of Joannes Stobaeos (2nd half of the 5th century). See Plessner, 1928; reviewed in: Plessner, Martin, *Der oikonomikós des Neupythagoräes "Bryson" und sein Einfluss auf die islamische Wissenschaft*. Edition u. Übers. Der erhaltenen Versionen, nebst einer Gesch. d. Ökonomik im Islm mit Quellenproben in Text und Übersetzung (Orient und Antike, hrsg. V. G. Bergsträsser und O. Regenbogen, Nr. 5.) Heidelberg, Winter, 1928. Reviewed by G. Sarton in George Sarton, "Twenty-Seventh Critical Bibliography of the History and Philosophy of Science and the History of Civilization (to September 1929)," *Isis* 13, no. 3 (1930)., p. 529; and Sarton, *Introduction to the History of Science (3 Vols.)*. (1931), vol. II, part II, p. 832; (1948), vol. III, part II, p. 1374.

²⁴ Combined with Xenophon's *Oikonomiké* M. Yassine Essid, "Islamic Economic Thought," in *Pre-Classical Economic Thought: From the Greeks to the Scottish Enlightenment*, ed. S. Todd Lowry (Boston: Kluwer-Nijhoff Publishers, 1987)., p. 84. Bryson's text is structured according to the elements of the family unit defined by Aristotle: goods (property), slaves (living property), wife and children. Aristotle, *Politics*., book 1, part 3, p. 6. It could follow as well the first book of Aristotle's *Oikonomikê*, which W. D. Ross says to be based on the first book of the *Politics* and Xenophone's *Oikonomikê*. However, in which concerns our topic, that first book although dealing also with the administration of the household does not have a section on money and Bryson's does. W. D. Ross (1981) quoted in Aristotle, *Económicos. Seudo-Aristóteles*, trans. Manuela García Valdés (Madrid: Akal, 1995)., p. 231. The Arabic term *tadbīr* is the verbal noun of the second form of the root *dabara* that, according to the Hans Wehr dictionary, means organization, direction, economics or "economization" (to make arrangements, plans; to prepare, plan, organize; to conduct, manage, run; to manage well, economize).

Based on Essid, Louis Baeck compiled a comprehensive volume on the transmission of economic ideas in the Mediterranean tradition, from Aristotle to the scholastics, via Islamic authors, that defends the unique character of a Mediterranean tradition of economic thought as a result of that connected history of transmissions and exchanges.²⁵

Following from here, and departing from the analysis of the monetary conception of the intermediate text, Bryson's *Fī Tadbīr ar-Rajul li-Manzil*, I argue that, as a result of the transmission of Aristotelian monetary conceptions not only through Aristotelian works but also Greek commentaries and texts like Bryson's, and being intertwined with the monetary needs of the empire administration, and entangled in Islamic jurisprudence, the approach towards money Islamic scholars portrayed was, as in the Christian writers, neither nominalist or metalist, but a sum of the two. We will see the main features of those approaches in the next epigraphs in comparison to those of their Christian counterparts, completing the whole picture of such a shared Mediterranean tradition on money.

I.1.2. *The transmission, reception and circulation of Aristotelian texts in the Middle Ages*

Concerning money and its nature, Bryson, as does Aristotle in the *Politics*, explained the origins of money as result of people's need to trade [in transactions].²⁶ However, the material chosen to set the price of other things and serve as an equivalent, turned out to be, by agreement [*iṣṭalāh*, agreement, convention, practice, instead of *nomos*], silver, gold and copper, rather than Aristotle's iron and silver.²⁷ The transmission of Bryson's text in the Islamic world contributed then to spreading a synthesized version of Aristotle's texts on money, combining both nominalist and metalist characters. Hence, though not having access to Aristotle's *Politics*, Persian and Arab scholars, assimilated through Bryson a more complete Aristotelian conception of money and not one based merely on certain nominalist sections of the *Ethics*.

Essid argues that both *tadbīr* and *Oikonomiké* include implicitly the idea that reality presents regularities and, hence, is susceptible of being comprehended, measured and calculated. Essid, *A Critique of the Origins of the Islamic Economic Thought*, p. 6. It was used for the management of the household, either as *tadbīr* or *tadbīr al-manzil*, in contrast with the administration of government or of the city (*tadbīr al-mudun*) and the government of God on earth (*tadbīr al-'alam*). Essid, "Islamic Economic Thought," p. 84.

²⁵ Baeck, *The Mediterranean Tradition in Economic Thought*.

²⁶ "*fī ḥājāt-al-nāsi li-l-nuqūdi fī al-mu'āmalāt*." Bryson, "Le Livre De Bryson Sur L'administration Domestique [Kitāb Brsīs Fī Tadbīr Al-Rajul Li-Manzilihi].", p. 9 of the Arabic text.

²⁷ "*fa-li-dhālika ṭaba'a an-nās adh-dhahaba wa-l-fiḍḍata wa-l-nuḥās wa thammanū bidhālika jamī'a al-'ashyā'i*." Ibid., p. 9 (text in Arabic). The French version by Seddik translates only silver and gold, leaving out copper: "*C'est pour cela que les hommes ont frappé monnaie d'or ou d'argent et en ont fait la valeur de toute chose*" (p. 20, text in French).

Aristotelian texts in the Islamic world were translated into Arabic, by mediation of the Syriac, between the 9 and 10th centuries, during the translation movement supported by the first Abbasid Caliphs.²⁸ Aristotle's *Nicomachean Ethics* had already been translated by the 9th century and the complete Aristotelian corpus, with the exception of the *Politics*, was available in Arabic by the 10th century, although in a great number of cases it had been tainted with neo-Platonism.²⁹ As is well known, the *Ethics* was to be extensively commented on in the Islamic philosophical tradition in the following centuries.³⁰

Bryson's text was translated into Arabic in the 10th century by the Christian notary Abū 'Alī 'Īsā b. Ishāq b. Zur'ah (d. 1008), as part of the wave of translations previously noted.³¹ It was read and commented on, according to Essid, by, at least, al-Fārābī, Ibn Sīnā,

²⁸ Al-Mansūr, second Abbasid Caliph, in power from 753-54 to 775, brought Nestorian Christian scholars to Baghdad and promoted the practice of medicine and translation. David C. Lindberg, "The Transmission of Greek and Arabic Learning to the West," in *Science in the Middle Ages*, ed. David C. Lindberg, *The Chicago History of Science and Medicine; Chicago History of Science and Medicine* (Chicago: University of Chicago Press, 1978), p. 53. This patronage continued with Hārūn al Rashīd (786-809) and 'Abdallāh al-Mam'ūn (Baghdad 786 - Tarsus 833). Sarton, *Introduction to the History of Science (3 Vols.)*. (1927), vol. I, p. 557. It is during the reign of Hārūn al Rashīd that the library of Baghdad received the name of *Bayt al-ḥikma* (House of Wisdom), becoming a center of scientific knowledge and intellectual activity, to be particularly impelled with his successor, al-Mam'ūn. Al-Mam'ūn was follower of the *mu'tazilī* movement (from *mu'tazilah*, the segregated one), branch of scholastic theology that defended the created character of the Qur'ān and confronted, in this way, the orthodox branch, (*mutakallimūn*, from *kalām*, scholastic theology), who stood instead for the eternal, sacred character of "the book." This confrontation enhanced the debate and speculations about different theological and philosophical aspects. "Mu'tazilism" gave a key role to reason in theological speculation and promoted the translation and commentary of Greek philosophical writings, brought usually from Byzantium. See Cahen, *El Islam: 1. Desde Los Orígenes Hasta El Comienzo Del Imperio Otomano*. (1972), p. 84; Jean Delisle and Judith Woodsworth, *Translators through History* (Amsterdam: John Benjamins Publishing Co., 1995), p. 113. For the role and functioning of the institution of *Bayt al-ḥikma* see the study of Marie-Geneviève Balty-Guesdon (1992), quoted in Françoise Micheau, "Les Institutions Scientifiques Dans Le Proche-Orient Médiéval," in *Histoire Des Sciences Arabes: 3 Technologie, Alchimie Et Sciences De La Vie*, ed. Rushdi Rashid (Paris: Editions du Seuil, 1997), p. 234. For the transmission of Greek philosophy from Byzantium to Syria and Persian through Nestorian philosophers see among others: José Ignacio Saranyana, *La Filosofía Medieval: Desde Sus Orígenes Patrísticos Hasta La Escolástica Barroca*, Colección De Pensamiento Medieval Y Renacentista ; Núm. 51; (Pamplona: Ediciones Universidad de Navarra, 2003), p. 192; Or Majid Fakhry, *A History of Islamic Philosophy* (London: 1983), pp. 5-19.

²⁹ See Cahen, *El Islam: 1. Desde Los Orígenes Hasta El Comienzo Del Imperio Otomano*. (1972), p. 120. Some fake works were attributed to Aristotle, among others the *Theologia Aristotelis* and the *Liber de causis*. Saranyana, *La Filosofía Medieval: Desde Sus Orígenes Patrísticos Hasta La Escolástica Barroca*, p. 193.

³⁰ The studies in the transmission of Aristotle's *Ethics* to the Islamic world are extensive. A synthesis of these may be found in Berman's study, which, among the receptors of this text, points to: al-Fārābī (870-950), Abū'l-Ḥasan ibn Abī Dharr al-'Āmirī (late 10th century), Ibn Sīnā (981-1037), Ibn Miskawayh (932-1030), Ibn Bājjah [Avempace] (1085-1138), who also knew about it mainly through al-Fārābī; Ibn Rushd [Averroes] (1126-1198) and Maimonides (1135-1204), primarily also through Ibn Bājjah and al-Fārābī, and then al-Ṭūsī (1201-1274), by way of Miskawayh. Lawrence V. Berman, "Ibn Rushd's Middle Commentary on the Nicomachean Ethics in Medieval Literature" (paper presented at the Multiple Averroes: Actes du Colloque International organisé à l'occasion du 850e anniversaire de la naissance d'Averroès 1976, Paris, 1978). p. 289. See also Miguel Cruz Hernández, *El Averroísmo En El Occidente Medieval* (Rome: Accademia Nazionale dei Lincei, 1971).

³¹ Bryson, "Le Livre De Bryson Sur L'administration Domestique [Kitāb Brsīs Fī Tadbīr Al-Rajul Li-Manzilihi].", p. 15.

aṭ-Ṭūsī, Dimashqī, and Qudāma ibn Ja'far.³² I observed explicit mention to Bryson in at least Miskawayh and, from his *Treatise of Ethics* (*Kitāb ādāb tahdhīb al-akhlāq*), I have traced his influence also in the works of al-Ghazālī (Algazel, 1058-1111) and Nāṣir ad-Dīn aṭ-Ṭūsī (Ṭūs, Khurāsān, 1201-1274).³³ Through the latter, the topic of domestic economy had become by the end of the 15th century part of the general body of knowledge in the Islamic world.³⁴

As is well known, in the Christian west of the Mediterranean, the only works by Aristotle circulating during the low Middle Ages were those on logic translated by Boethius at the beginning of the 6th century, the commentaries of John of Damascus on the "Categories" and "Metaphysics" at the beginning of the 8th century, and Porphyry's "Introduction".³⁵ The so-called "intellectual revolution" of the 12th century opened the door to further translations and gave place to the "second reception" of Aristotle in Latin Europe, to be completed by a third one in the 13th century, this time through Ibn Rushd's commentaries.³⁶ The wave of

³² In the 1987 article, Essid comments also on his influences on al-Ghazali and Dawwani. Essid, "Islamic Economic Thought." p. 87. According to Sarton, Plessner followed up the tradition of this group of texts also in the Arabic literature, including also Ibn Miskawayh, Ibn Sīnā, and al-Ghazālī, Sarton, *Introduction to the History of Science* (3 Vols.). (1930), p. 529. Ibn Sīnā wrote basically a reproduction of Bryson's text at the beginning of the XI century, also entitled *Kitāb al-Tadbīr*. See: Bryson, "Le Livre De Bryson Sur L'administration Domestique [Kitāb Brsīs Fī Tadbīr Al-Rajul Li-Manzilihi]." It does not speak, however, of money.

³³ Miskawayh quotes Bryson about "the right upbringing of children." Abu Ali Ahmad Ibn Muhammad Miskawayh, *Traité D'éthique* (Paris: Librairie philosophique J. Vrin, 1982)., pp. 19, 22-22, 14; Al-Ghazālī or Algazel (Ṭūs, Iran, 1058-1111), includes in the fourth volume of his encyclopedic work, *Ihyā' al-'Ulūm ad-Dīn* (*The Revival of the Sciences of Religion*), written in Jerusalem in the 1090s and published in 1101, a section on household management, where the issue of money is examined in relation to possessions, family and the right uses of wealth. The work deals with money in several sections of the second volume and in the fourth volume. For a more detailed explanation about which sections deal with money of this encyclopedic book, see appendix number IV. In the *Nāṣirian* ethics, written in Persian probably before 1256, al-Ṭūsī deals as well with "household wisdom" or "household administration" and politics. He indeed acknowledges this debt to Miskawayh, and in fact explains that his purpose is to render Miskawayh's treatise on *Ethics* into Persian while completing it with the other two main issues of Practical Philosophy, Politics and Economics. Nāṣir al-dīn aṭ-Ṭūsī, *The Nasirean Ethics*, trans. Wickens G. M. (London: George Allen & Unwin Ltd., 1964)., pp. 25-28. Sarton already said that it belonged to the "Islamic tradition" derived from Aristotle and Platonic ethics through the neo-Pythagorean Bryson. Sarton, *Introduction to the History of Science* (3 Vols.). (1931), vol. II, part II, pp. 727, 1010-11.

³⁴ The book on practical philosophy, *al-Shāhīya fī 'ilm al-akhlāq*, by al-Ījī (Iran, d. 1355), also using Ibn Sīnā; the encyclopaedia of science, *Nafā'is al-funūn fī 'arā'is al-'uyūn*, written in 1334-42 by Muḥammad Ibn Maḥmūd al-Āmilī (d. c. 1352), including a section on domestic economy as well, according to Sarton; the Persian *Akhlāq-I-Jalālī* by Jalāl al-dīn Muḥammad ibn As'ad al-Dauwānī (1427-1501), according to Islahi; or, the *Akhlāq-I-Muḥsinī* composed by Ḥusain-I-Kāshifī in 1494-1495, according to Plessner. Plessner (Heidelberg, 1928) Briefly reviewed in Sarton, "Twenty-Seventh Critical Bibliography of the History and Philosophy of Science and the History of Civilization (to September 1929).", p. 529-30. Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis* (11-905 A. H./632-1500 A. D.), pp. 49 and 53 (n. 5). Sarton, *Introduction to the History of Science* (3 Vols.). (1931), vol. II, part II, pp. 727, 1011-12; (1947), vol. III, part I, pp. 628-29 and 632-33.

³⁵ Lindberg, 1978, p. 53. S. Vailhé, "Damascus," in *The Catholic Encyclopedia* (New York: Robert Appleton Company, 1908).

³⁶ See, among others, Tina Stiefel, *The Intellectual Revolution in Twelfth-Century Europe* (London: Croom Helm, 1985).; and Saranyana, *La Filosofía Medieval: Desde Sus Orígenes Patrísticos Hasta La Escolástica Barroca.*, p. 232.

translations initiated in the 12th century between the Italian and Iberian Peninsulas centered around two courts, those of Toledo and Sicily, but also developed in Zaragoza, Burgos, the Languedoc region and other cities of Italy, involving translators and scholars from different regions of Europe and the Mediterranean, who moved through a broad area ranging from Baghdad to al-Andalus and from Ireland to Constantinople.³⁷

Muslim and Jewish controversies over Aristotle's philosophy awoke an interest among Christian readers for direct knowledge of "the philosopher's" corpus and, as had occurred before among Muslim and Hebrew theologians, Aristotelian philosophy raised strong reactions from Christian theologians and certain sections within the Church.³⁸ The controversy around the errors of Ibn Rushd and Aristotle, and the debates that confronted the different Augustinian and Aristotelian trends of scholasticism enhanced, rather than diminished, the study of those two authors. As a result, Aristotelianism spread hand in hand with the different types of "Averroism" and their opponents; the works of both philosophers being systematically translated from the 13th century on.³⁹

³⁷ In Toledo, after the king of Leon and Castille "reconquered" the city in 1085, his successor, Alfonso X "the Wise," gathered in his court scholars from different parts of Europe that arrived to learn Arabic and translate and profit from the huge collection of Arab manuscripts the city held. It generated the so-called "Translation School of Toledo," said founded by Raymund, Archbishop of Toledo (1124-51), in 1128, and directed by Gundisalvo, (Dominicus Gundissalinus); MacKay, *La España De La Edad Media. De La Frontera Hasta El Imperio (1000-1500)*. (1977), p. 99; Antonio García Lizana and M. Isabel Calero Secall, "El Significado De Al-Ándalus En El Pensamiento Económico Español," in *Economía Y Economistas Españoles: De Los Orígenes Al Mercantilismo*, ed. Enrique Fuentes Quintana (Barcelona: Galaxia Gutenberg, 1999), p. 24. There are some debates however about its actual character as school. See Lindberg, "The Transmission of Greek and Arabic Learning to the West," pp. 64-65. Similar trends developed in Zaragoza, after the king of Aragon and Navarre took the city in 1118. George F. Hourani, "The Medieval Translations from Arabic to Latin Made in Spain," *The Muslim World* 62 (1972), p. 102. In the Ebro Valley and the Provençal-Languedoc region, Jewish communities and families, mainly of physicians, escaping from Almohad repression in al-Andalus, turned to translate Arab philosophical and medical texts to preserve a bulk of knowledge then in danger once the new generations of Jews, from their new settings, were progressively losing their acquaintance with Arabic language. MacKay, *La España De La Edad Media. De La Frontera Hasta El Imperio (1000-1500)*, (1977), p. 102. In Palermo at the Sicilian court of Frederik II (1194 – 1250), translations and philosophical exchanges between Latin, Hebrew and Islamic scholars were equally promoted, after the island had passed to Norman hands in 1130. Majid Fakhry and Thérèse-Anne Druart, in *The Arabs and the Encounter with Philosophy* (Washington: Center for Contemporary Arab Studies, 1988), p. 16; Juan Vernet, "Lo Que Europa Debe Al Islam De España," (Barcelona: El Acanalado, 1999), p. 85.

³⁸ See Charles Burnett, "John of Salisbury and Aristotle," *Didascalía* 2 (1996), p. 22. The Catholic Church reacted against the "dangers" of Aristotelianism already in 1228, when Pope Gregory IX sent a letter to the faculty of theology at Paris asking theologians "to be on their guard against a wrong use of philosophy and to remember that theology was a science whose principles were received by faith and were above the level of human reasoning." In 1231 the Pope softened somehow his position, partly influence by the advices of William of Auxerre. It will be followed, however, by the condemnations led by Stephen Tempier (bishop of Paris) of a group of Aristotelian thesis in 1272 and 1277. The attack was directed against the whole Latin Peripatetic movement, including both Thomism and the more "radical" section, Averroism. See Van Steenberghen's studies, quoted in Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350*, pp. 64-65 and 375.

³⁹ William A. Wallace, "The Philosophical Setting of Medieval Science," in *Science in the Middle Ages*, ed. David C. Lindberg (Chicago: University of Chicago Press, 1978), p. 104. Burman's study of 11-12th century

Michael Scot (Miguel Escoto, d. 1235), from Toledo and Bologna, made the first translations of Ibn Rushd's writings about 1220-1230, but it was Hermann the German (d. 1272) who translated Ibn Rushd's *Middle Commentary on the Nicomachean Ethics* from Arabic into Latin in 1240, less than fifty years after Ibn Rushd's death.⁴⁰ The Hebrew translation by Samuel ben Judah of Marseilles is dated later, about 1321-22.⁴¹

Hermann the German also translated the *Alexandrian Summary* of the *Ethics* some years after Ibn Rushd's *Middle Commentary*, around 1243-44.⁴² Almost at the same time, Robert Grosseteste (c. 1169-1253) had translated by 1242-43 two Greek commentaries on the *Ethics* by Michael of Ephesus (11th c.) and Eustratius (12th c.) that were also used by early scholastics.⁴³ Already by the end of the twelfth century, Aristotle's original text of the *Nicomachean Ethics* "began to be translated" from Greek into Latin, the *Ethica vetus*.⁴⁴

Mozarabs theological debates shows how they were indeed versed and drew arguments for different theological traditions, both Christian and Muslim. See Olivia Remie Constable, "Religious Polemic and Intellectual History of the Mozarabs C. 1050-1200." By Thomas E. Burman. Brill's Studies in Intellectual History, Vol. 52. Leiden: E.J.Brill, 1994, "Journal of the American Oriental Society" 116, no. 2 (1996), p. 316. The category of "averroism" is however misleading, since it refers to scholars not necessarily reading Ibn Rushd but accepting some of the conception others attributed to him, or simply related to the Arts Faculty in the University of Paris. J. Janssens, "Some Classics of Islamic Philosophy and Their Reception in the Western World" (2004), p. 14. See also Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 145. Jewish "Averroism" initiated in the 12th century with Ibn Maymun's disciples and lasted till the Renaissance. The two forms of 'Averroism,' Latin and Jewish, were indeed interconnected and influenced each other. See Dominique Urvoey, *Ibn Rushd* (London: Routledge, 1991), pp. 124-126, and 130.

⁴⁰ Berman, "Ibn Rushd's Middle Commentary on the Nicomachean Ethics in Medieval Literature", pp. 292-93. Date given also by Sarton, *Introduction to the History of Science (3 Vols.)* (1931), vol. II, part II, pp. 491, 832-33, 855; and Elaine Golden Robison, "Herman the German," in *Dictionary of the Middle Ages*, ed. Joseph Reese Strayer (New York: Charles Scribner's Sons, 1985), p. 208. There is, however, certain discussion about the exact date of its publication. Following M. Cruz Hernandez and Hourani, Janssens dates it between 1232 and 1247, or before 1256, with the translations of the *Rethorics* and the *Poetics*. See M. Cruz Hernandez, 1997, pp. 282-283; and Hourani, G. F., 1972, p. 104; both quoted in Janssens, "Some Classics of Islamic Philosophy and Their Reception in the Western World", pp. 13-14.

⁴¹ Berman, "Ibn Rushd's Middle Commentary on the Nicomachean Ethics in Medieval Literature", p. 295. Text edited by Berman in 1999.

⁴² The *Summa Alexandrinorum* was a brief work in Arabic derived from the *Ethics*. See Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 66. Brunetto Latini (1230-1294), Dante's teacher or guide, translated it into old French in 1267. Berman, "Ibn Rushd's Middle Commentary on the Nicomachean Ethics in Medieval Literature", pp. 292-93.

⁴³ See the critical edition of those Greek commentaries by J. Paul Mercken, *The Greek Commentaries on the Nichomachean Ethics of Aristotle in the Latin Translation of Robert Grosseteste, Bishop of Lincoln (1253)* (Leiden, 1973). Quoted in F. Gilbert, "Jacob Burckhardt's Student Years: The Road to Cultural History," *Journal of the History of Ideas* 47 (1986), p. 49.

⁴⁴ Two partial (or at least partially remaining) translations are registered before Grosseteste's one: the *translatio antiquissima* or *Ethica vetus* (with books II and III of the *Ethics*) and the *translatio antiquior* or *Ethica nuova* (only book I remaining and scraps of later books). All them edited by R. A. Gauthier in the *Aristoteles Latinus*, XXVI, 1-3. There are other fragments but none related with sections on economics. See Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 66. Langholm does not give dates. Hourani mentions a translation, probably the *Ethica vetus*, finished before the end of the 12th century. Hourani, "The Medieval Translations from Arabic to Latin

However, it was only about the middle of the century, 1246 or 1247, that Grosseteste published the complete translation of Aristotle's *Ethics*, the *translatio lincolniensis*.⁴⁵ In the second third of the 13th century, Taddeo Alderotti translated it into Italian also.⁴⁶

Bryson's text must have been translated into Latin from Arabic also about the time of the *Ethics*, and probably before Aristotle's *Politics*.⁴⁷ Peter Gallego (d. 1267) translated an abridged version of Bryson's *Oikonomiké* in the first half of the 13th century, initially ascribed to Galen.⁴⁸ Then another "abridged" version of a text on household management, this time explicitly ascribed to (Pythagorean) Bryson, was translated from the Arabic by Armengaud, son of Blaise (Montpellier, d. 1313) at the end of the 13th or beginning of the 14th century.⁴⁹ The Hebrew translation of Bryson's Arabic text was made by David ben Solomon Ben Ya'ish of Seville in the second half of the 14th century.⁵⁰ Hence, since the mid-13th and 14th centuries,

Made in Spain.", p. 104. Callus speaks of them being dated at the turning of the 12th century, Daniel A. Callus, "Robert Grosseteste as a Scholar," in *Robert Grosseteste, Scholar and Bishop*, ed. Daniel A. Callus (Oxford: 1955), p. 62.

⁴⁵ From Lincoln, town where Grosseteste was bishop. The translation was finished in 1247 according to Langholm. Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 66. It included the expositions on the text by Michael of Ephesus, Eustratius, and other two anonymous commentators. Then Grosseteste also compiled a summary of the contents of the *Ethics*. Callus, "Robert Grosseteste as a Scholar.", pp. 34 and 64.

⁴⁶ Between 1269-1303. Taddeo Alderotti (Thaddaeus Florentinus, c. 1223-1303). Sarton, *Introduction to the History of Science (3 Vols.)*. (1931), vol. II, part II, pp. 737 & 1086. At least an "abbreviated" version of it. See Pearl Kibre and Nancy G. Siraise, "The Institutional Setting: The Universities," in *Science in the Middle Ages*, ed. David C. Lindberg (Chicago: Chicago University Press, 1978), 1978, p. 136.

⁴⁷ The transmission of Bryson's text to Latin Europe is entangled with that of the pseudo-Aristotelian texts on *Oikonomiké*, which is quite close in content although does not speak of money. See Pseudo-Aristotle, *Económicos* (Madrid: Editorial Gredos, 1995). Nederman's book of 1991 explains that *economics* formed part of the practical sciences already before the translation of the *Politics*. He refers back to Blythe (1989) and Dorothea Oschinsky (1971) for medieval household manuals. See Cary J. Nederman, "The Monarch and the Marketplace: Economic Policy and Royal Finance in William of Pagula's Speculum Regis Edwardi Iii," *History of Political Economy* 33, no. 1 (2001), p.51. Langholm refers to another pseudo-Aristotelian text, "derived" from Arabic, *Secretum secretorum*, dealing with politics and slightly with economics, but adds that: "the main economic sequences of Aristotle's *Politics* seem to have been ignored in the West until the middle of the 13th century." Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 352.

⁴⁸ Peter Gallego, Franciscan, confessor of Alfonso X "The Wise" and first bishop of Cartagena after its "reconquest," Sarton, *Introduction to the History of Science (3 Vols.)*. (1931), vol. II, part II, pp. 492 & 562.

⁴⁹ "*Yconomica Galieni*." *Œconomica*, Theodor Trotz: Der Inhalt der Dresdener lateinischen Galenhandschrift aus dem Anfange des 15. Jahrhunderts; Ester Abdruck der "Œconomica Galeni" (Diss. Sudhoff's Institut, Auszug, 14 p., Leipzig, 1921); *Isis* IV, n° 2, p. 398. See, "The Patient's Choice: A New Treatise by Galen", Vivian Nutton, *The Classical Quarterly*, New Series, Vol. 40, No. 1. (1990), pp. 236-257, p. 251. Later Sarton says that some lines of Bryson's text were preserved also in Joannes Stobaeos's anthology (2nd half of the 15th century), plus the Arabic and Hebrew versions and adaptations. Stobaeos, from Stobi, Macedonia, compiled that anthology (Stobaeos' *Florilegium*) with more than 500 Greek authors of "all ages." The fourth book deals with "domestic and public economy, politics, and arts." See editions by Augustus Meineke (4 vols., Leipzig, 1855-1857), and Curtius Wachsmuth and Otto Hense (5 vols., Berlin, 1884-1912). Ibid. (1927), vol. I, p. 405; (1931), vol. II, part II, pp. 492, 562, and 831-32.

⁵⁰ Ibid. (1948), vol. III, part II, p. 1072.

the literature on “household management” or “pater familias” expanded also in the Latin world.⁵¹

With respect to Aristotle’s *Politics*, Moerbeke translated the text from Greek into Latin for the first time around 1260.⁵² Both Aquinas and Peter of Auvergne commented on it, and from then on it became a crucial text in the development of the current discussions on usury.⁵³

To sum up, following the transmission and reception of those texts, we may conclude that: first, Islamic authors as well as Aristotle’s *Ethics* counted with Bryson’s text that presented some of Aristotle’s monetary conceptions as recorded in the *Politics*; and second, by the time they were writing, Christian commentators, not only had access to both Aristotle’s *Politics* and the *Ethics* (translated within a 23-year interval), as well as previous Greek commentaries on the latter and Bryson’s text, but also to Ibn Rushd’s *Middle commentary* on the *Ethics* (translated about seven years before the actual text of Aristotle’s *Ethics*). Given the short time elapsed between the translations, with the exception perhaps of Albert or some early scholastics, most Christian scholars were exposed to the complete set of Aristotelian monetary conceptions and texts. The resulting picture is then that of an amalgamation of connections, texts, commentaries and paths of influence.

I.1.3. Common Aristotelian grounds: money as metal and money as law

In the commentary tradition just reviewed, and as a result of the intertwined set of influences and connections, certain common themes and ideas emerged, rooted not in a single source but in that blurred net of connections. Certain concepts, such as the origins of money in trade, its function as equivalent of exchanges, its role as part of a legal system that guarantees justice and redistribution, and thus the need for the stability in its value, the critique of greed, usury

⁵¹ Following that line, *De regimine principum* by Giles of Rome (1243-1316) was also organized in three subjects – *Ethica*, *Oeconomica*, and *Politica*; the second book being based on the government of the family and divided into three parts: husband and wife, father and son (including education), master and servant. Ibid. (1931), vol. II, part II, pp. 800 & 924-25. Indeed, also a commentary on the pseudo-Aristotelian work *Oikonomiké* was attributed to him. See Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 376. A century later, Leon Battista Alberti wrote *Della Famiglia*, which “deals with household management.” See: Raymond de Roover, “Labour Conditions in Florence around 1400: Theory, Policy and Reality,” in *Florentine Studies: Politics and Society in Renaissance Florence*, ed. Nicolai Rubinstein (London: Faber & Faber, 1968)., p. 278.

⁵² Some sources point out that Moerbeke, Dominican of Flemish origin, bishop in Corinto, undertook such a translation by “request” of Aquinas, who wanted to erase any possible influence of Averroism since most of the available versions (by Gerardo de Cremona, Michael Scot et al.) derived from Arabic sources. Other than Baeck’s volume, I have not found any source or evidence referring to this fact. Baeck, *The Mediterranean Tradition in Economic Thought.*, p. 156.

⁵³ Sarton, *Introduction to the History of Science (3 Vols.)*. (1938), vol. III, part II, p. 1276.

or those pervasive monetary transactions that disrupt social cohesion, became so intertwined and widespread that they cannot be taken but as resulting from a common tradition, indisputably Mediterranean. Next, I will point out the main lines of this common tradition concerning money, including some of the nuances and distinctions also involved:

a. The origins of money in trade

The idea that money originated to ease trade, itself a result of the human need for cooperation and social interaction, solidified as a commonplace from Bryson's *Oikonomiké* to the medieval Islamic scholars and later, with the *Politics*, into the Latin world. In this respect, this conception is not an original contribution of any medieval author but a recurrent issue that from Greek thinkers on became a common point of reference throughout history.

Among Islamic authors, the idea of the origins of money in trade appears at least as a common notion from the 10th century on.⁵⁴ There are explicit references to it in Miskawayh's work *Shawāmil*, at the turn of the century; in al-Ghazālī's *Iḥyā'* (1101), and Dimanshqī's "Handbook for merchants," and Ibn Rushd's commentary on Plato's *Republic* (1170s), all written about the 12th century.⁵⁵ Thereafter, Miskawayh and, following him, aṭ-Ṭūsī, in his volume on practical philosophy, would repeat it again about 1256. From the latter, it would become a common idea in the literature on ethics, as in al-Dawwānī (1427-1501), appearing as well in other later scholars, such as Ibn Khaldūn, who mentions similar conceptions in his *Muqaddimah*, written during 1375-78.⁵⁶ It also occurred among Christian scholars but only

⁵⁴ It appears even in earlier authors as Qudāma Ibn Ja'far (864-932), who, in his book on taxes and administration (*Kitāb al-Kharāj wa Sinā'at al-Kitāba*), considers money as an invention introduced to solve the human needs of trade. Qudāma b. Ja'far, 1981, p. 434; quoted in Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis (11-905 A. H./632-1500 A. D.)*, p. 47. Ibn Ja'far could be so the first Islamic author that had some direct or indirect access to Bryson's text. Although writing before the text was translated into Arabic, he could have read it in Greek, since he was a (maybe Nestorian) Christian converted to Islam and is possible that he read Greek.

⁵⁵ Miskawayh (Rayy, Iran, 932-1030), as Brunshvig collected and Essid highlighted; [quotes Brunshvig, 1967, p. 114] Essid, "Islamic Economic Thought," p. 87. The "manual for merchants" (*Kitāb al-Ishāra*) by ad-Dimashqī (a. 12th c.), exposes how trade made necessary the introduction of a medium, "substance" or "specie" (*jawāhīr*, the same term used in the Arabic text of Bryson) to value things and exchange them accordingly. Abū al-Fadl Dimashqī, *Eloge Du Commerce* (Tunis: Edition Media Com, 1995), p. 8 (Arabic); p. 22 (French). In the *Iḥyā'*, al-Ghazālī (Ṭus, Iran, 1058-1111) explained also the origins of gold and silver to ease human needs of trading. Abu Hamid Muhammad ibn Muhammad Al-Ghazali, *Imam Gazzali's Ihya Ulum-Id-Din*, trans. Karim Fazlul, IV vols. (Lahore: Sind Sagar Academy, 1978-79), vol. IV, p. 95. Ibn Rushd (Cordoba, 1126-1198) in his commentary on Plato's *Republic*, in states other than the ideal, justifies that: "gold and silver, as has been explained in the Nicomachean Ethics, are needed in those [other] States only because of the difficulty of transacting business." Ibn Rushd, *Averroes Commentary on Plato's "Republic"*, p. 148.

⁵⁶ Aṭ-Ṭūsī (Ṭus, Khurāsān, 1201-1274) aṭ-Ṭūsī, *The Nasirean Ethics*, p. 157. Al-Dawwānī quoted in: Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis (11-905 A. H./632-1500 A. D.)*, pp. 49 and 53 (n. 5). For Ibn Khaldūn (1332-1406), who read both Aristotle and Ibn Rushd, money appeared only with the expansion of civilization and commercial exchanges. Bedouins, the basic and initial form of social organization in Ibn Khaldūn's scheme, did not use or need money but started using it when established commercial relations

from the mid-13th century on.⁵⁷ This appears in line with scholastics' commentaries on the *Politicis*, such as those of Albert the Great, written in 1262-63, and Aquinas, 1269-79, and only a decade later in Giles of Rome's *De regimine principum* (1277-79).⁵⁸ From here it would become a commonplace among Christian scholastics, as it had earlier in the Islamic world.⁵⁹

b. Money as metal but not necessarily a commodity to be hoarded

Most Islamic and Christian scholars accepted the metallic character of money within a more complex conception of what money and its different dimensions implied. Their writings reflect, as well as their own experiences in contexts of hard money economies, the noted ambivalence about the nature of money that emerges in Aristotle. On the one hand, it was a metalist conception of money in the sense that most of the authors were aware of the metallic nature of money, as a medium of exchange and coins made out of precious metals, with due weight and alloys. However, on the other hand, acknowledging this metallic nature did not ultimately lead to treating money like any other commodity.

The fact that money is made from precious metals is an issue taken for granted among Islamic scholars, embedded in a well-structured and defined monetary system based on a gold-silver bimetallic standard, as we will see. This was already reflected in the Arabic translation of Bryson's text, which speaks of money being made of gold, silver and, sometimes, copper, instead of silver and iron, as did Aristotle's *Politics*.⁶⁰ The general reference to gold and silver, although backed by religious arguments, is basically explained by their physical features. For the early theorists of Islamic fiscal administration, such as

with sedentary groups. Ibn Khaldûn, *Ibn Khaldûn: Discours Sur L'histoire Universelle Al-Muqaddima*, trans. Vincent Monteil (Beirut: "Thesaurus" Sindbad, 1967), p. 236.

⁵⁷ Earlier scholastics as Alexander of Hales (1170/85–1245) and John of La Rochelle (1200-1245) in the former's *Summa theologiae*, written around 1245, had analyzed trade as result of the needs of society, referring to commercial activities or business as those supplying mutual need among men. Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 122. About the sources, Sarton states that their *Summa Theologica* was "based on the Latin translations of Aristotle, of Muslim commentaries, chiefly Ibn Sīnā's, and of Jewish writings, chiefly those of Ibn Gabirol and Maimonides." Sarton, *Introduction to the History of Science (3 Vols.)*. (1931), vol. II, part II, p. 582.

⁵⁸ Giles of Rome's (1243-1316) *De regimine principum* was written in 1270 according to Ronald W. Truman, "Spanish Treatises on Government, Society and Religion in the Time of Philip II: The 'De Regimine Principum' and Associated Traditions," (Leiden: Brill, 1999), pp. 18-19; Albert the Great's *Commentary on the Politics*, p. 55; and Aquinas' *Sent. Pol.*, Lecture II, 4, to Aristotle II, 2; quoted in Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, pp. 178, 203-205, 367, 376-78. For the date of Aquinas' commentary on the *Politics*, see Ana Mallea and Celina A. Lértora, "Prólogo," in *Comentario a La Política De Aristóteles* (Pamplona: EUNSA, 2001), p. 11.

⁵⁹ Among others, Petrus Joannis Olivi (1247/48-1298). Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, pp. 333-34.

⁶⁰ See note 27 above.

Qudāma Ibn Ja'far (864-932), money is made out of gold because of its “durability, easy minting and availability in a reasonable quantity,” which made this metal more suitable for use as a medium of exchange and unit of measure.⁶¹ Miskawayh (932-1030), in the *Shawāmil*, speaks as well about the benefits of using gold and silver as money because of their physical qualities and scarcity.⁶² Dimashqī's account (c. 12th c.) probably offers a more “material” approach to money directed at merchants who would be able to recognize its value and not be cheated when dealing with different types of coins.⁶³ So did al-Ghazālī.⁶⁴

In the literature on currency transactions, changes (*ṣarf*), a certain ambiguity persisted as well between the value of metal and coin.⁶⁵ Ibn Rushd's *Bidaya*, his handbook of jurisprudence completed in 1168, compiles different legal opinions on money changing that treat transactions with coined money or coins almost as transactions with metals.⁶⁶

This does not mean, however, as Brunschvig proposes, that gold and silver metal has the same “value” as coined metals, because Islamic jurists took into account differences in value due to the costs of minting.⁶⁷ Neither does it imply that the commodity character of money was fully accepted.

Gold and silver become legal tender when minted, but gold and silver metals, since they are destined to become money, must be reserved (given their scarcity) to be used as such.

⁶¹ Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis (11-905 A. H./632-1500 A. D.)*, p. 48; The choice to use metals as money was however considered arbitrary, as reported by the qadī Aḥmad Ibn Hanbal (founder of the Hanbali school of jurisprudence). According to Ibn Qudamah, Ibn Hanbal took money as anything people decided to be so. Ibn Qudamah, *alMughni*, 1972, vol. 4, p. 176; quoted in Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis (11-905 A. H./632-1500 A. D.)*, p. 47.

⁶² “Because of its relative scarcity and durability, together with its ease of melting, gold has been preferred for this purpose above all other commodities. Silver, he maintained, serves as the deputy (khalīfa) of gold because of its divisibility.” [Brunshvig, 1967, p. 114] as quoted in Essid, “Islamic Economic Thought,” p. 87.

⁶³ Dimashqī theorizes about the use of certain metals over others as money due to their particular (physical) qualities, stating that the consensus (*ijmā'*) of the people is to prefer gold and silver. Among the minerals, gold and silver are chosen instead of others, as iron, copper or lead, because iron and copper becomes rusty or oxidize and lead is too malleable and dirty. Dimashqi, *Eloge Du Commerce*, p. 9 (Arabic); p. 22 (French)

⁶⁴ Al-Ghazālī compares unlawful and lawful coins (dirham licit and illicit) in relation to their inner or material characters. He quotes Ibn Hanbal to affirm that to distinguish one from the other we should put them together, which refers necessarily to their material appearance and differences that could be noticed or measured. Abu Hamid Muhammad ibn Muhammad al-Ghazali, *Le Livre Du Licite Et De L'illicite (Kitab Al-Halāl Wa-L Harām)* (Beirut: Les Editions Al-Bouraq, 1999), p. 144.

⁶⁵ Al-Muzanī, a Shāfi'ī scholar of the 9th century, for example, said that coined gold and silver had the same “meaning” (*ma'na*) than gold and silver in bars, not coined; or same “character”, according to Brunschvig's translation. See Al-Muzanī, *Muḥtaṣar*, II, 140, IXe siècle. Robert Brunschvig, “Conceptions Monétaires Chez Les Jurists Musulmans (VIIIe-XIIe Siècles),” *Arabica* 14 (1967), p. 3.

⁶⁶ Ibn Rushd, when speaking about gold and silver, refers either to coins, ore or moulds of those metals. “[coins, ore or moulds] are the same for the prohibition of sale.” Abu al-Walid Mohammed Ibn Rushd, *The Distinguished Jurist's Primer: Bidāyat Al-Mujtahid* (Reading: Garnet Publishing, 1996), p. 234.

⁶⁷ The Malikī School, to which Ibn Rushd belonged, accepted that the difference of value comes from the coinage cost. Mālik and Ibn al-Qāsim accepted as legitimate the payment of the cost of production, while the majority of the jurists rejected it. *Ibid.*, p. 234.

Indeed, most scholars rejected the use of metals such as gold and silver, for anything that was not trade or exchange. Condemning hoarding and the misuse of these instruments of trade becomes almost a constant. Both use and trade of gold and silver vessels and adornments is something repeatedly criticized by different Islamic jurists not only of the Shāfi'ī School of Islamic jurisprudence, to which al-Ghazālī or Ibn al-Ukhūwah were ascribed, and which held the stronger position in this respect, as Ibn Rushd explained, but also by the rest of the schools, such as the Hanbalī of Ibn Taimīyah.⁶⁸ The aversion to the use of gold and silver vessels appears as well in al-Sunāmī.⁶⁹

It is in this light, as well, that critiques of hoarding or of accepting metals as a form of wealth must be understood, a discussion Aristotle raised in his *Politics* and which, although it did not appear in Bryson's text, transmitted to Islamic scholars as well. In this sense, al-Ghazālī (1058-1111) does acknowledge the metallic aspect of money but he values it no more

⁶⁸ "Likewise if one makes utensils of gold and silver, he misuses them. He is a heretic that he thus abuses the gifts of God. It is just like asking an officer of the town to carry on the sweeper's work." Abu Hamid Muhammad ibn Muhammad al-Ghazali, *The Revival of Religious Sciences*, trans. Behari Bankey (Farnham: Sufi Pub. Co., 1972), p. 163. "If anybody uses gold and silver for utensils, reservoirs and cups or for anything else like these, acts contrary to the object for which these are created and is ungrateful to God and he commits sin. His condition is worse than that of the man who keeps them buried. Cups can be made of iron or copper but they have no value of exchange and all things cannot be purchased through their medium." (Again al-Ghazālī uses the Qur'ān to reinforce his argument). In Al-Ghazali, *Imam Gazzali's Ihya Ulum-Id-Din.*, vol. IV, p. 96. See also Abu Hamid Muhammad ibn Muhammad Al-Ghazali, *L'obligation D'ordonner Le Bien Et D'interdire Le Mal (Livre Xix, Vol. II De L'ihyâ 'Ulûm Al-Dîn)*, trans. Léon Bercher (Tunis: Impr. N. Bascone & S. Muscat, 1961), p. 66. Ibn al-Ukhūwah will repeat as well the prohibition of selling objects and clothes made out with an undefined amount of gold or silver in exchange of gold and silver respectively, and wearing gold and using gold and silver in making vessels, with the exception of ornamentation of weapons of war. Muhammad ibn Muhammad Ibn al-Ukhūwah, *The Ma'alim Al Qurba Fi Ahkam Al-Hisba of Diya' Al-Din Muhammad Ibn Muhammad Al-Qurashi Al-Shafi'i Known as Ibn al-Ukhūwah*, trans. Levy Reuben (Cambridge, Eng.: Cambridge University Press, 1938), pp. 5 & 25; p. 77 in the Arabic text. In Ibn Taimīyah's *Majmū Fatāwā* or his collection of religious opinions on different issues, Ibn Taimīyah repeats in several sections the prohibition of using gold and silver vessels and adornments. I have found at least two sections dedicated in particular to it, offering the differences of opinions among scholars, examples and detailing possibilities and circumstances: Ahmad Ibn-Qasim Abd-ar-Rahman Ibn-Muhammad Ibn Taimiya, *Majmū'at Fatāwā Ibn Taimiyah*, 5 vols., vol. 2 (Beirut: Dār al-Fikr, 1983), pp. 353-357; And "on buying and selling gold and silver jellewery" (parts of the *Kitāb al-Ikhtiyārāt al-'Ulumīyah*). Ahmad Ibn-Qasim Abd-ar-Rahman Ibn-Muhammad Ibn Taimiya, *Majmū'at Fatāwā Ibn Taimiyah*, 5 vols., vol. 4 (Beirut: Dār al-Fikr, 1980), pp. 4-5, and pp. 75-76. Ibn Rushd explains how al-Shāfi'ī's position, the most radical, is based on a saying of the Prophet that ordered to melt a gold necklace before exchanging it for money: "The messenger of Allāh, when he was at Khaybar, was brought a necklace in which there was gold and pearls and it belonged to the spoils that were being sold. The Messenger of Allāh ordered that the gold be separated and then he said: 'Gold by gold, weight by weight'". Ibn Rushd, *The Distinguished Jurist's Primer: Bidāyat Al-Mujtahid.*, p. 234. In the commentary on the *Republic* is more explicit about it: "So you cannot acquire gold or silver, or store them under the beams of your houses, or adorn yourselves with them, nor shall you drink out of silver or golden vessels." Ibn Rushd, *Averroes Commentary on Plato's "Republic"*, I, p. 145; Other scholars that opposed it was al-Sunāmī; *Niṣāb*: 45, quoted in Mu'il Yusuf Izzi al-Din, *The Theory and the Practice of Market Law in Medieval Islam. A Study of Kitāb Nisab Al-Ihtisab of Umar B. Muhammad Al-Sunami (Fl. 7th-8th/13th-14th Century)* (E.J.W. Gibb Memorial Trust, 1997), p. 22.

⁶⁹ *Niṣāb*: 45, quoted in Izzi al-Din, *The Theory and the Practice of Market Law in Medieval Islam. A Study of Kitāb Nisab Al-Ihtisab of Umar B. Muhammad Al-Sunami (Fl. 7th-8th/13th-14th Century)*, p. 22.

than stones.⁷⁰ Moreover, he explicitly points out that those metals have no value other than being an equivalent or unit of exchange, using the metaphor of a mirror.⁷¹

Condemnation of hoarding money is another common stance among Islamic and Christian scholars. For al-Ghazālī, it is a sin to treat metals as wealth and to hoard them. He quotes the Qurʾān to support his argument against hoarding, as will Ibn Taimiyah a century and a half later.⁷²

The main aim was to force metals and money to circulate. Al-Ghazālī repeats, several times, that those metals were created only to serve as a medium of exchange.⁷³ Brunschvig and Essid have argued in this respect that al-Ghazālī does not recognize the function of money as a repository of value.⁷⁴ However, al-Ghazālī recognizes that money is valuable to men because to possess money is the same as possessing all things.⁷⁵ Instead, I think that al-Ghazālī does recognize that aspect of money but condemns it. His main concerns are to reduce or eliminate the morally “corrupting” character inherent in money, and, at the same time, to promote the development of the whole community, which makes circulation of

⁷⁰ “These are nothing but stones and have got no value of their own.” Al-Ghazali, *Imam Gazzali's Ihya Ulum-Id-Din.*, vol. IV, p. 95.

⁷¹ “They are like unto the mirror which has not colour of its own, but all colours can be reflected in it. So also gold and silver are of little use themselves but with them every earthly object can be purchased. Just as letters of the alphabet by themselves are of little use, but when they are properly combined can be used to convey all meanings and serve great purpose.” al-Ghazali, *The Revival of Religious Sciences.*, p. 163. Metaphor repited in the other mentioned section. Al-Ghazali, *Imam Gazzali's Ihya Ulum-Id-Din.*, vol. IV, pp. 95-96.

⁷² “If instead of using them [gold and silver] one buries them underground or hoards them for long, he does oppression to them and makes inoperative the object of God. These gold and silver have not been created especially for Zaid or Amr but as medium of exchange of things. They are however not been created for food but for getting food. There is writing of God on everything without words. God says (in 9: 34 Q) – Those who hoard up gold and silver and do not spend in the way of God give them news of grievous punishment.” Al-Ghazali, *Imam Gazzali's Ihya Ulum-Id-Din.*, vol. IV, p. 96. Ibn Taimiyah quotes the same aleya from the *Qurʾan* (9/34-35), Ahmad b Abd al-Halim Ibn Taymiyah, *Public Duties in Islam: The Institution of Hisbah* (Leicester: The Islamic Foundation, 1982), p. 105. Or Ibn Taimiya, *Enjoining Right and Forbidding Wrong*, translated by Salim Morgan, available in the web: <http://www.java-man.com/Pages/Books/alhisba.html> (20/04/06); The Qurʾān however seems to refer to religious men hoarding money that had been entrusted to them for charity. “Believers, many rabbis and monks wrongfully consume people’s possessions and turn people away from God’s path. [Prophet], tell those who hoard gold and silver instead of giving in God’s cause that they will have a grievous punishment” (Q, 9:34), *The Qurʾan*, trans. M. A. S. Abdel Haleem (Oxford: Oxford University Press, 2005), p. 119. A similar condemnation appears in (Qurʾān, 3: 14). See Brunschvig, “Conceptions Monétaires Chez Les Jurists Musulmans (Viie-Xiie Siècles).”, p. 2. The indictment was generalized to all ways of amassing money in general by following jurists and theologians.

⁷³ At least four times, in these pages dealing with gold and silver issues, as is repeated that God created them only to serve as medium of exchange. Al-Ghazali, *Imam Gazzali's Ihya Ulum-Id-Din.*, vol. IV, p. 96.

⁷⁴ See Essid’s position in: Essid, “Islamic Economic Thought.”p. 88; probably based on Brunschvig, “Conceptions Monétaires Chez Les Jurists Musulmans (Viie-Xiie Siècles).”p. 2.

⁷⁵ “God appointed them as judges of ascertainment of values and prices of all things and for their exchange. For this reason, these gold and silver are dear to men. He who has got gold and silver possesses as it were all things.” Al-Ghazali, *Imam Gazzali's Ihya Ulum-Id-Din.*, vol. IV, pp. 95-96.

money a necessity.⁷⁶ Hence, his references to the need for money to circulate and serve a good purpose, or “the way of God.”⁷⁷ Indeed, Ibn Rushd, in the *Middle Commentary* to Aristotle’s *Ethics*, commented on the part that says that money is the substitute or supplement of future necessity, thus recognising as well its function as a repository of value.⁷⁸ Ibn Khaldūn stated that gold and silver are treasures in the “eyes” of people.⁷⁹ Later, at-Ṭūsī, when speaking of the physical nature of money (metal) that makes it suitable as currency (solidity, worth, firmness, perfection, portability) added that those features contributed also to the stability of “acquired gains,” thus accepting, as well, the idea of money as a repository of value and its accepted permanence.⁸⁰

Another major concern underlying the prohibition from exchanging gold and silver objects for gold and silver metals or coins was to avoid the possibility of usury entailed in those transactions. A saying or tradition (*ḥadīth*) of the Prophet Muḥammad is clear in this respect and commands the exchange of metals of only the same kind according to strict equal quantities and from hand to hand.⁸¹ Hence, equality in quality and quantity had to be so

⁷⁶ “The Traditions and the Qurān lay it down that if one accumulates beyond his necessity that shall be a source of trouble to him, here and hereafter.” (...) “Hoarding of wealth is condemned because it develops sensual appetites, greed, etc., and the love of the world which are all fatal to the spiritual aspirant.” al-Ghazali, *The Revival of Religious Sciences.*, p. 164 & 166. Also several mentions to the pervasive or corrupting effect of wealth in his mirror for princes: Abu Hamid Muhammad ibn Muhammad al-Ghazali, *Ghazālī’s Book of Counsel for Kings (Nasīḥat al-Mulūk)*, trans. F. R. C. Bagley (London: Oxford University Press, 1971).pp. 32, 36, 37, 39, 43, and 54 among others.

⁷⁷ In al-Ghazālī spend in the way of God means: “Way of good means performance of duties towards God which means spending wealth for the servants of God who are in need and wants” Al-Ghazali, *Imam Gazzali’s Ihya Ulum-Id-Din.*, vol. IV, p. 98; probably referring to the Islamic commands for alms-giving, since he quotes the mentioned saying of the Qur’ān (9: 34). See note 72 above.

⁷⁸ See text transcribed below; a temporal dimension that Urvoy had negated. Urvoy, “Les Vues D’averroès Sur La Monnaie Comme Intermediaires Entre Celles D’aristote Et Celles Des Averroïstes Latins.”

⁷⁹ “Aux yeux des hommes, c’est, par excellence, ce qui constitue les trésors et la propriété. Même si, dans certaines circonstances, on acquiert autre chose, c’est uniquement pour pouvoir, finalement, la convertir en argent ou en or.” Ibn Khaldūn, *Ibn Khaldūn: Discours Sur L’histoire Universelle Al-Muqaddima.*, p. 605 ; Ibn Khaldun, *Muqaddimat Ibn Khaldun*, ed. Khalil Shihadah and Suhayl Zakkar (Beirut: Dar al-Fikr, 2004)., p. 363.

⁸⁰ at-Ṭūsī, *The Nasirean Ethics.*, p. 157.

⁸¹ “The prophet said, ‘Sell Gold for Gold, from hand to hand, at an equal rate according to weight, for any inequality in point of weight is usury.’” *The Hedaya of Ali ibn Bakr*, (tr. By C. Hamilton), London, 1791, vol. 2, pp. 551-66. Quoted in Grice-Hutchinson, *Early Economic Thought in Spain 1177-1740.*, p. 24. Following that saying, Ibn Rushd in his handbook of jurisprudence states that: “The majority of the jurists followed what is related by Mālik from Nāfi’ from Abū Sa’īd al-Khudrī that the Messenger of Allāh (God peace and blessings be upon him) said, ‘Do not sell gold for gold except like for like and do not devour some of it with the rest, do not sell silver for silver except like for like and do not devour some of it with the rest and do not sell a thing absent for one that is present’. This is one of the most authentic traditions of this topic.” Ibn Rushd, *The Distinguished Jurist’s Primer: Bidāyat Al-Mujtahid.*, p. 233. Equally repeated in different treatises of ḥisbah: in as-Saqatī’s treatise, written in Malaga in the first quarter of the 13th century. Pedro Chalmeta Gendrón, “El Kitāb Fī’ Ādāb Al-Hisba (Libro Del Buen Gobierno Del Zoco) De Al-Saqatī [Traducción Del ‘Kitāb Fī’ Ādāb Al-Hisba (S. Vii/Xiii) De Al-Saqatī],” *Al-Andalus XXXII & XXXIII* (1967-68)., p. 366 [46]; and al-Shayzarī’s (Syrian, d. 1193), ‘Abd al-Rahman ibn Nasr al-Shayzarī, *The Book of the Islamic Market Inspector: Nihayat Al-Rutba Fi Talab Al-Hisba*, trans. Buckley R. P. (Oxford: Oxford University Press, 1999)., p. 94.

respected in the exchanges of metals, and thus money, since money and metal are almost equivalent and equally treated, as far as one is made out of the other.⁸²

As noted, according to Langholm, the metallic or commodity aspect was a key dimension of money that most scholastics of the period took from Aristotle.⁸³ This reading was in line with the rediscovery of Roman law in Italy.⁸⁴ The first Roman jurists, among them Azzo (c. 1159-c.1250), Accursius (1182-1263) and Odofredus (d. 1265), portrayed a conception of money where its value depended on its metallic content.⁸⁵ Based on that conception, later Roman jurists, contemporary of Aquinas, advocated for the *bonitas intrinseca*, the good quality, of coins in exchanges, hence, its intrinsic value.⁸⁶

Aquinas acknowledged that metals were used as money because they were useful.⁸⁷ Along the same line, Giles of Rome (1243-1316) would justify in *De regimine principum* the use of gold and silver, reflecting the new bimetallic situation in Western Europe, due to their

⁸² “L’usage fréquent de peser les pièces au lieu de se fier à leur seule marque devait perpétuer le sentiment d’une différenciation nulle ou imparfait entre la monnaie proprement dite et les deux métaux précieux.” Brunschvig, “Conceptions Monétaires Chez Les Jurists Musulmans (Viiiie-Xiiiie Siècles).”, p. 3. According to Essid, there was always confusion among Arab scholars between weight and measure (or value) when speaking about coins. M. Yassine Essid, “La Monnaie Arabe Et Musulmane,” (IHEC, Sfax, 2004).

⁸³ Langholm defends that most of scholastics read Aristotle from “a pure metalist conception of money;” like Bonaventura, which definition of money in “its narrow sense” (*pecunia numerata*) relates to the material character of money, “money as specie, as coined money.” Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 162.

⁸⁴ Sarton, *Introduction to the History of Science (3 Vols.)*. (1931), vol. II, part I, p. 267.

⁸⁵ “Being a special commodity, it was nevertheless a commodity,” Baeck, *The Mediterranean Tradition in Economic Thought.*, pp. 146-147; So was received from the Roman legist, as Paulus (2nd c.): “*Il Giuriconsulto Paolo tanto nella celebre Legge prima del Digesto de contravenda emptione, quanto altrove, e tutti gli altri Giuriconsulti Romani, lungi dal sostenere il prezzo arbitrario della moneta, avevano, insegnato, che la sua valuta da altro non poteva dipendere, che dalla quantità del metallo, che la formava.*” Giovanni Francesco Pagnini, *Della Decima E Di Varie Altre Gravezze Imposte Dal Comune Di Firenze: Della Moneta Della Mercatura De’ Fiorentini Fino Al Secolo Xvi* (Lisbon & Lucca: 1765)., p.131.

⁸⁶ See the concept *bonitas intrinsecas* in Andrea d’Isernia (1230-1316) and Cino de Pistoia (1270-1336). Baeck, *The Mediterranean Tradition in Economic Thought.*, p. 170. “Isernia and Venafrò,” *Catholic Encyclopedia*, Kevin Knight, 2007; available in the web at: <http://www.newadvent.org> (21/03/2008).

⁸⁷ Thomas Aquinas and Pedro de Alvernia, *Comentario a La Política De Aristóteles*, trans. Ana Mallea (Pamplona: EUNSA, 2001)., p. 81; some authors take Aquinas’s commentary on the *Politics* to argue for his being a “conventional theory of money,” money being nothing but a convention. “Money, Aquinas explained, ‘will be of price nil if the King or the community decides that it is worthless’.” Lapidus, “Metal, Money, and the Prince: John Buridan and Nicholas Oresme after Thomas Aquinas.”, p. 27. However, even if Aquinas, using the mention in the *Ethics* that being a convention “it is in our power” to change money and make it useless, commented that by decision of either king or community the value of money may be turned zero, this is only an illustration of the *conventional* character of the use of money, not of its value, hence, the final stand that money should not be confused with wealth in general. Hence, the convention that may be modified by king or community is the actual use of that money not the value of that money, which is related to its metal content. See also curious section in the *Summa*, about how “real gold and silver can produce certain results by their natural action, which the counterfeit gold and silver of alchemists cannot produce. Thus the true metal has the property of making people joyful, and is helpful medicinally against certain maladies.” Thomas Aquinas, *Summa Theologica*, ed. The Project Gutenberg EBook, trans. Fathers of the English Dominican Province (Benziger Bros. edition, 1947)., Part II-II (Secunda Secundae), Q. 77, Art. 2. Available in the web: <http://www.stjamescatholic.org/summa/SS/SS077.html#SSQ77A2THEP1> (05/01/2008).

“portability, preciousness and utility.”⁸⁸ Indeed, those commentaries on Aristotle’s *Ethics* which, written from 1271 to 1277 and classified within the Latin Averroists’ literature, represent an intermediate step from Aquinas’s conception of money to Buridan and Oresme’s, also give a series of reasons for money being necessary that are based on its physical characteristics as metal (same arguments that Buridan would develop some years later).⁸⁹

The hoarding of metals, which, as we will see, became a recurrent problem in moments of bullion famine, is a common claim that appears in most Islamic and Christian authors. Aquinas will condemn the hoarding or burying of money, quoting Ambrose in the *Decretals* and the Gospels.⁹⁰ So will, almost eighty years later, Oresme, quoting Cassiodorus and, aware of the problems bullion scarcity entailed for monetary management, extending his indictment against thesaurization towards using metals for uses other than money.⁹¹

In this respect, Aquinas held an ambiguous position close to that of al-Ghazālī, although with some qualifications. In his commentary to the *Sentences* of Peter Lombard, written shortly after 1256, and referring back to Aristotle’s *Ethics*, Aquinas pointed out that money, in contrast to other things, has no utility; its only utility is to “measure the utility of other things.”⁹² However, in his commentary on Aristotle’s *Politics*, the monetary unit

⁸⁸ Langholm commenting on the *De regimine principum* (book II, part iii, chapter 9); Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 385.

⁸⁹ Those reasons, abbreviated in other “Averroist commentaries,” are almost identically as those given by Buridan in his commentary on the *Ethics* and by Oresme in his treatise on money. Vat.lat.832,ff.1r-43v at f.31va-b; Paris BN lat.16089, ff.195r-233v at f.216ra-b; Erfun Amplon F.13,ff.85r-120r at f.106va-b; Erlangen UB 213,ff.47r-80r at f.67ra-b. Similar justifications appear as well in questions on the *Politics* in the Bologna’s collection, “paraphrasing” Paris Averroists, as well as in Guido Vernani’s commentary on the *Politics* and in the Oxford manuscript doubtly adscribed to Nicholas Trivet. Ibid., pp. 400-02.

⁹⁰ “the money that you bury in the earth is the price of the poor man’s ransom and freedom.”(...) “the servant who buried in the earth the money he had received from his master, and did not trade with it through fainthearted fear, was punished by his master (Matt. 25; Luke 19).” Aquinas, *Summa Theologica.*, (04/06/2006) Part II-II (Secunda Secundae), Q. 66, Art. 7 and Q. 133, Art. 1.

⁹¹ “il ne doit pas être permis d’en affecter à d’autres usages une quantité telle qu’il n’en resterait pas suffisamment pour la monnaie;” Quoting Cassiodorus, Oresme explains the case of the king Teodorico, who ordered to take gold and silver from the tums to bring them to the mints. Nicole Oresme and Jean Buridan, *Traité Des Monnaies Et Autres Écrits Monétaires Du Xive Siècle (Jean Buridan, Bartole De Sassoferrato)*, ed. Claude Dupuy, trans. Frédéric Chartrain (Lyon: La Manufacture, 1989)., p. 50.

⁹² Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 240. Since he did not have the *Politics* by then, certain influence could derive from his reading of al-Ghazālī’s *Iḥyā’*, where, as mentioned, there are numerous mentions to money not having value in itself, like a mirror has no colour. Indeed, although Aquinas would become famous as the defeater of Ibn Rushd, he used al-Ghazālī to confront the philosophical “errors” of the former, using al-Ghazālī’s *Iḥyā*, particularly in his *Summa Theologica*. Sarton, *Introduction to the History of Science (3 Vols.)*. (1931), vol. II, part II, pp. 736 & 915. For an elaborate analysis of the later, and evidences of some common quotes, see: Ghazanfar, “The Economic Thought of Abu Hamid Al-Ghazali and St. Thomas Aquinas: Some Comparative Parallels and Links.”

appears to be made out of a material that is useful and costly due to its scarcity.⁹³ This idea that the material out of which money is made is “costly,” was not in Aristotle, although we saw how some Islamic authors introduced it (as scarce in Miskawayh or worthy in aṭ-Ṭūsī).

As did al-Ghazālī, Aquinas also made reference to vases and utensils being made out of precious metals, although, in contrast to the former, Aquinas did not share the Islamic discomfort about using objects of gold and silver.⁹⁴ In the *Summa Theologica*, section on usury, Aquinas seems to be responding to al-Ghazālī’s concerns in this respect when he explains the difference between the character of silver and gold when they are utensils or metal, and thus objects, and, in contrast, their character when coined, thus money.⁹⁵ Aquinas allows then exchanging and trading the former but not the later. Money must only be “sunk in exchange” (also repeated in other sections and in *De Malo*).⁹⁶ The emphasis again, as in al-Ghazālī, is that money is to circulate and to be “consumed,” an idea that, as Langholm suggests, derived also from the *Digest* and Hostiensis (d. 1271).⁹⁷

In line with Essid’s conclusions, the rejection of hoarding money seems to be a result of realizing the need for money to circulate in order to produce and generate benefits for the whole community or society.⁹⁸ This brings to mind the metaphors that appeared in the

⁹³ *Sent. Pol.*, Lecture II, 4, to Aristotle II, 2. Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 205.

⁹⁴ The Visigoths regulations were more strict in this respect: “(VII.6.iii.) Whoever takes gold for ornaments, debases it, or corrupts it with an alloy of bronze or silver or other more common metal, let him be held as a thief.” King Eruigius, “From the Laws of the Visigoths: On Coinage,” <http://www.fordham.edu/halsall/source/631visigothic-coins.html> ;

⁹⁵ “De esta índole son los metales, como el hierro, la plata y otros similares, pues son útiles en sí mismos en cuanto con ellos se fabrican vasos o algunos instrumentos, pudiéndose llevar no obstante con facilidad a lugares remotos, ya que poca cantidad de los mismos y debido a su escasez, valía mucho más que las demás cosas. De este modo, los hombres que debían recorrer un largo camino, en vez de llevar para sus gastos dinero de bronce lo llevaban de plata o de oro.” [*Sent. Pol.*, I, 7] Aquinas and Alvernia, *Comentario a La Política De Aristóteles.*, p. 81. In the *Summa* there is also an objection and answer in relation to silver and gold vessels being sold or rent. Aquinas explains how silver made into coins is different than silver made into a vessel. Aquinas, *Summa Theologica.*, Part II-II (Secunda Secundae), Q. 78, Art. 1. Gold and silver vessels were during the medieval period taken as equivalent or symbols of wealth, so it seems that Aquinas was drawing the distinction between them and the medium of exchange. See the mention to “great wealth of English money, of cups and vessels” and then to “restitution of vessels here and money there” in Guibert de Nogent’s memoirs, written in 1115, and noted below.

⁹⁶ “money, according to the Philosopher was invented chiefly for the purpose of exchange: and consequently the proper and principal use of money is its consumption or alienation whereby it is sunk in exchange;” (...) “the principal use of silver money is sinking it in exchange;” Aquinas, *Summa Theologica.*, II-II, Q. 78, Art. 1. Also in *De malo*, XIII, 4, c; cp. Also ad 5. Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 242.

⁹⁷ Hostiensis, Henry of Susa (cardinal of Ostia), repeated that money was invented “for the sake of exchange” in his arguments against usury and in reference to the *Politics*. *De usuris*, part of his *Summa aurea* on the *Decretals* of Gregory IX, to V, 19; Lyon 1537, f. 249va. Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 241.

⁹⁸ “Their rejection of any idea of accumulation and miserliness indicates that they had a strong sense of an active economy in which money bears fruit only insofar as it circulates.” Money as “mediating institution” as “a factor

seventeenth-century medical and economic discourses where money was conceived of as the circulating medium of the body politic as blood was for the human body.⁹⁹ Caffentzis sees it as a commonplace that appears in mid-seventeenth century political writings, although it may be interesting to investigate how the roots of it appeared earlier.¹⁰⁰ In fact, I have found other cases of this “conceptual commerce between medicine and economic thought,” at least in Ibn Rushd and al-Maqrīzī. It is probably another commonplace whose historical origin is difficult to ascertain.¹⁰¹

c. Divergences, money as commodity and measure that needs to be stable if not fixed

To fully acknowledge the commodity character of money in metallic monetary systems, would lead to the observation that its value fluctuated in metal or money markets (markets where metals or coins of different denomination were traded). In this respect, a crucial difference increasingly appears between Islamic and Christian scholars. Based on the Aristotelian double theory of value, Christian authors, from Aquinas to Oresme, acknowledged the distinction between a natural or principal use of money (medium of exchange) and a secondary use (commodity).¹⁰² This double conception made compatible the different dimensions of money while progressively accepting that, as a commodity, a metal, circulating in the markets, its value might be subject to the same laws of supply and demand as other things. This was an aspect completely rejected or ignored by most of the Islamic authors.

While in Aristotle precious metals (silver and iron) are chosen as units of measure and guarantee of exchanges in future because, although fluctuating, their values “tended” to be more stable than that of other commodities, and while Bryson also mentions this stability as a

making desires compatible, promoting cohesion in society, and instituting order, and a principle of rationality by which the relations of exchange are organized.” Essid, *A Critique of the Origins of the Islamic Economic Thought*, pp. 54-55 and 106.

⁹⁹ See Groenewegen, Peter, ed. *Physicians and Political Economy: Six Studies of the Work of Doctor-Economists*. London: Routledge, 2001]; quoted in C. George Caffentzis, “Medical Metaphors and Monetary Strategies in the Political Economy of Locke and Berkeley,” *Project Muse.*, p. 204.

¹⁰⁰ Ibid., p. 206.

¹⁰¹ A commonplace that, in searching for the remedy to cure the nation from its “monetary” disease goes from, if not before, al-Maqrīzī and the problem of copper in the fifteenth century, to Newcomb and the issue of paper money in the nineteenth century, passing by Locke and Berkeley in the seventeenth century, and finds some of its roots in the ancient Persian political tradition. See Newcomb’s parallelisms with al-Maqrīzī’s discourse: Simon Newcomb, “The Cause and the Remedy,” in *The ABC of Finance* (New York: Harper & Brothers, 1877).; and also Gerard de Malynes, *A Treatise of the Canker of England’s Commonwealth* (London: 1601)..

¹⁰² For the development of the double theory of value applied to money, from Henry of Ghent to Alexander of Alexandria and the commentary tradition of the *Ethics* at the end of the 13th century to Oresme, see the discussion in: Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, pp. 399-400, 438.

determinant factor in choosing silver and gold, Islamic commentators and thinkers eliminated from their speculations on money any possibility that the standard of value would fluctuate in the markets.¹⁰³ Furthermore, no Islamic author commented on the idea stated in the *Ethics* that, as part of a convention or law, the value of money might be changed.

Ibn Rushd (Cordoba, 1126-1198) and Ibn Khaldūn (Tunis, 1332-1406) offer, in this respect, two paradigmatic cases. Ibn Khaldūn transformed Aristotle's idea that the value of metals "tends" to be stable into the idea that gold and silver are "isolated" from market estimations.¹⁰⁴

Urvoy has suggested that Ibn Rushd's interpretation of the law or convention that defines money acquires a permanent character not present in Aristotle, while Miller, on which Baeck draws, had pointed to certain gaps in Ibn Rushd's commentary on Aristotle's *Ethics* that could lead also to a similar conclusion.¹⁰⁵ Ibn Rushd's *Middle Commentary* on Aristotle's *Nicomachean Ethics*, completed in 1177, is lost in Arabic and only the Latin and Hebrew translations are still extant.¹⁰⁶ Yet, Prof. Steven Harvey kindly checked for me the part dealing with money in the Hebrew translation of Ibn Rushd's *Middle Commentary* and compared it with the Arabic translation of Aristotle's *Ethics* that Ibn Rushd used to make his commentary. Prof. Harvey confirmed that, indeed, Ibn Rushd avoids commenting on that passage where Aristotle says the value of money, given that money is so by convention (*nomos*) and not by nature, may be changed (by us) and hence, made useless. The Arabic version of the Aristotelian text, the one used by Ibn Rushd, did indeed translate this part;¹⁰⁷ yet in the Hebrew version, Ibn Rushd's commentary makes no comment about it and simply says that:

¹⁰³ Bryson, "Le Livre De Bryson Sur L'administration Domestique [Kitāb Brsīs Fī Tadbīr Al-Rajul Li-Manzilihi].", pp. 19-20.

¹⁰⁴ "Tout, sauf l'or et l'argent, est soumis aux fluctuations [assignments of] des marches (ḥawālat al-aswāq)." Ibn Khaldūn, *Ibn Khaldūn: Discours Sur L'histoire Universelle Al-Muqaddima.*, p. 605; Ibn Khaldun, *Muqaddimat Ibn Khaldun.*, p. 363.

¹⁰⁵ "Averroès tire cette idée de loi non pas dans le sens de la relativité comme le faisait son modèle, mais au contraire dans celui de la permanence." Urvoy, "Les Vues D'averroès Sur La Monnaie Comme Intermediaires Entre Celles D'aristote Et Celles Des Averroistes Latins.", p. 207. Miller, according to Baeck, stated that Ibn Rushd transformed the section ("it is for us to alter it and make it useless") into: "with the Greeks, money was liable to change according to convention and law." C. Miller, "Studien zur Geschichte der Geldlehre" in *Münchener Volkswirtschaftliche Studien*, 146, Stuttgart: 1925, pp. 68-73, p. 70. Quoted in Baeck, *The Mediterranean Tradition in Economic Thought.*, p. 113.

¹⁰⁶ The Latin translation by Hermann the German in 1240 of Latin Aristotle, not edited, and the Hebrew translation of 1321-22 by Samuel ben Judah of Marseilles, edited by Lawrence V. Berman in 1999. Berman, "Ibn Rushd's Middle Commentary on the Nicomachean Ethics in Medieval Literature"., pp. 295. According to Berman excerpts of Ibn Rushd's *Middle Commentary* in Arabic remain in the margins of the Fez manuscript of the *Ethics*. Berman, "Ibn Rushd's Middle Commentary on the Nicomachean Ethics in Medieval Literature"., p. 291.

¹⁰⁷ "Money has come to be the equivalent of what is given, the equivalent of the need by a kind of agreement. On that account it has this name 'money', since it is not by nature but simply by *nomos*, for the name for money in

“since money exists by convention and since the name *nomos* among the Greeks derives from [a word meaning] convention, money is called in the language of the Greeks by a name derived from the name *nomos*.”¹⁰⁸

Ibn Rushd does not make any reference to nature and directly omits the passage "it is for us to alter that and make it useless."¹⁰⁹ Harvey also highlighted further that Ibn Rushd rearranges this section instead of closely following Aristotle, as he does for the rest of the Middle Commentary.¹¹⁰ It may be a significant aspect to consider. Moreover, Ibn Rushd also does not follow Aristotle in stating that the value of money changes, as with any other goods.¹¹¹ Those passages also do not appear in the Latin translation.¹¹² Both omissions and rearrangement are particularly significant if we take into consideration that Ibn Rushd was one of the Islamic scholars who knew Aristotle best through the direct reading of his texts.¹¹³ It must have been, therefore, a conscious choice of Ibn Rushd, and shows that he was, at the least, uneasy with the idea that money (or its value) could be changed.

Urvoy's thesis is thus confirmed. Ibn Rushd does not consider money as something subject to change. It seems also appropriate to confirm Cruz Hernández's thesis that in Ibn

Greek is *nomisma*, and it is for us to alter that and make it useless." Aristotle et al., *The Arabic Version of the Nicomachean Ethics*, Aristoteles Semitico-Latinus ;; V. 17; (Leiden: Boston, 2005), p. 314. I have to thank prof. Steven Harvey for this quote.

¹⁰⁸ According to Prof. Harvey Averroes' discussion in the edition of the Hebrew translation is found in: Abu al-Walid Mohammed Ibn Rushd, *Averroes' Middle Commentary on Aristotle's Nicomachean Ethics: In the Hebrew Version of Samuel Ben Judah* (Jerusalem: The Israel Academy of Sciences and Humanities, 1999), pp. 186-187.

¹⁰⁹ Prof. Harvey did not find in the medieval Hebrew translation of Averroes the quotation Miller and Baeck mention "with the Greeks, money was liable to change according to convention and law."

¹¹⁰ Harvey affirms that what is particularly interesting in this passage is that "unlike in most of his commentary on the Ethics--Averroes here totally rearranges the discussion of money as follows: 1133a32-33, b8-10, a19-20, b10-13, a27-31, b20-23, a20-28." See Ibn Rushd, *Averroes' Middle Commentary on Aristotle's Nicomachean Ethics: In the Hebrew Version of Samuel Ben Judah*. Again I have to thank Prof. Harvey for these finding. Berman also suggested that Ibn Rushd followed Aristotle quite closely in most of the commentary. Berman, "Ibn Rushd's Middle Commentary on the Nicomachean Ethics in Medieval Literature", p. 293. Unfortunately, there is no translation or critical edition of the text that could help to assess those facts properly. The translation plan exposed by Wolfson in the 1960s, stands still. Harry A. Wolfson, "Revised Plan for the Publication of a Corpus Commentariorum Averrios in Aristotelem," *Speculum* 38, no. 1 (1963). The group of Prof. Charles E. Butterworth, in the University of Maryland, is working on it.

¹¹¹ See text transcribed above.

¹¹² " & cùm ista inveniãtur in denario expositiõe, & sit nomen legis apud Gręcos, denominatię sumptũ à positiõe, nominatus est denarius in lingua Gręca, nõe denominative sumpto à lege." It is indeed based on the Hebrew translation. Aristotle and Ibn Rushd, *Aristotelis Opera Cum Averrois Commentariis: Venetiis Apud Juntas, 1562-1574* (Frankfurt: Minerva, 1962), (Book V, chapter V) p. 72E.

¹¹³ Cruz Hernández extensively demonstrated how Ibn Rushd, from a deep and direct knowledge of Aristotelian texts, breaks with the dominant Neo-platonic synthesis and with the trend that during all the Middle Ages had led to a "neo-platonization" of Aristotle. Ibn Rushd also confronts Aristotelian-Neoplatonic Muslim Synthesis by previous authors as that of Ibn Sīnā. Cruz Hernández, *Los Límites Del Aristotelismo De Ibn Rusd.*, pp. 23-24, 40, 140-141. That line of interpretation has been followed up later on by other authors as Steven Harvey and Mohamed Mesbahi. Harvey considers Ibn Rushd with Aquinas among the greatest in mastering Aristotelian corpus. Steven Harvey, "Conspicuous by His Absence: Averroes' Place Today as an Interpreter of Aristotle" (Leiden, 1999), p. 41.

Rushd money, gold and silver, is not considered a good, *per se*, a commodity, but only a means of exchange through minting;¹¹⁴ a conception that he shared with previous authors, like al-Ghazālī.

Albert the Great or Albertus Magnus (1193/1207-1280), unlike Ibn Rushd, commented on the Aristotelian sentence that money is not money by nature, but by law. However, as can be seen in his second commentary on Aristotle's *Ethics*, written in 1262-63, Albert the Great also changes this sentence and writes: "*money does not take its name from the nature of gold or silver.*"¹¹⁵ The reference to the nature of those metals is new; as it is also new the introduction of gold, reflecting the appearance and minting of gold coins in Latin Europe at the end of the 13th century. Albert the Great was already combining the *Ethics* and the *Politics*. However, the phrase: "takes its name from," is reminiscent of Ibn Rushd's noted intricate explanation that among Greeks money took its name from the word *nomos*.¹¹⁶

In his commentary on the *Ethics*, written by 1271, Aquinas, in spite of basically following the *Second Commentary* of his master, Albert the Great on economic issues, goes back to Aristotle's revised translations and makes a more detailed study and comparison of Aristotle's works than his master, dropping Ibn Rushd from the *Ethics*.¹¹⁷ Hence, Aquinas's *Sententia libri Ethicorum*, translates closely the mentioned section of Aristotle's *Nicomachean Ethics*:

¹¹⁴ Miguel Cruz Hernández, ed., *Abū-L-Walīd Muḥammad Ibn Rushd, Averroes: Antologia*, Introducción y selección de Miguel Cruz Hernández ed. (Sevilla: Fundacion el Monte, 1998), p. 62.

¹¹⁵ *Second commentary*, p. 358, quote in Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 193. Callus says that Albert was probably the first to make use of Grosseteste's translation. Callus, "Robert Grosseteste as a Scholar.", p. 65. Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 170.

¹¹⁶ See note 108 above. So does the confusion in following lines. Where Aristotle says that given that money is money not by nature but by law then "*it is in our power to change it and make it useless,*" Albert simply interpretates that this power to "change" or "alter" derives from the possibility of being added or subtracted in a monetary scale - which is certainly a wrong interpretation of the Aristotelian text. Repeated several times. *Second commentary*, pp. 357, 358 & 360; quoted in Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 193. Albert misreads as well the part *inutile* (useless) and takes it as *in utile*, explaining then money as such a "common legal tender that may at will be exchanged for useful objects." *First Commentary*, p. 345; *Second Commentary*, p. 358; quoted in Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 194; Both confusions could be result from using Ibn Rushd's commentary, which probably Albert was using, see: Aristotle and Rushd, *Aristotelis Opera Cum Averrois Commentariis: Venetiis Apud Juntas, 1562-1574.*, (Book V, chapter V) p. 72E.

¹¹⁷ Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 204.

“for that reason, money is called *numisma*, since *nomos* means law. Because money is not a measure by nature but by law, since it is in our power to change it [transmutare denarios] and make it useless”¹¹⁸

Aquinas keeps the statement that “it is in our power to change it,” but it is still not clear whether what can be altered or *transmutare* is the value of money (either its intrinsic or face value) or the status a coin has as legal tender. As in Aristotle, it seems to refer to the latter. Indeed, a decade later, Giles of Rome would interpret this as what may be changed is whether a coin is or is not legal tender (the official coin circulating in a place), not its value.¹¹⁹ Oresme closes the discussion, in his commentary of 1370, by explicitly clarifying that it is both the value of money and its currency (the fact that it circulates as legal tender at a certain point) that is defined by law.¹²⁰

In relation to the fluctuating character of money, as a commodity, Albert commented also that money serves as a guarantee of future exchange and that its value may fluctuate.¹²¹ However, instead of adding as Aristotle did that, in any case, this value “tends to be stable,” in the first commentary, Albert transforms it into a prescriptive statement, softened in the second: money, as a measure, “ought to be firm (*certa*).” In the second commentary he explains simply that even if it is not a firm guarantee, this defect is rare and is to be endured, and he is thus somewhat closer to Aristotle in this respect.¹²² In Aquinas, this stability refers to the purchasing power of money (*potest*): it is the purchasing power of money, not its nominal value, that changes with time, although, instead of the Aristotelian sentence that, nevertheless, “money tends to be stable,” or Albert’s normative statement, Aquinas says money “ought to

¹¹⁸ The Latin text goes: “*Et inde est quod denarius vocatur numisma: nomos enim lex est, quia scilicet denarius non est mensura per naturam, sed nomo, id est lege; est enim in potestate nostra transmutare denarios et reddere eos inutiles.*” Thomas Aquinas, “Sententia Libri Ethicorum, Libro Iii Lectione XIV Ad Librum V,” in *Opera Omnia* (Roma: Leonine, 1969). [73686] lib. 5 l. 9 n. 5.

¹¹⁹ “If men change their minds as to their use, they would be worth nothing,” Langholm’s comment, referring to *De regimine principum* (I, i, 7); Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, pp. 385-86.

¹²⁰ Oresme’s commentary on the *Ethics*, written in 1370, exposes: “TEXTE: Elle a été instituée selon un accord our convention de l’homme. C’est pourquoi elle est appelée monnaie car elle ne reçoit pas son prix ni son cours de la nature, mais de la loi et d’une ordonnance de l’homme. Et celui-ci est en mesure de transformer de prix et de décrier ce cours. GLOSE: *C’est-à-dire de fixer son cours et son usage dans la commutation. It faut savoir qu’en grec la monnaie se dit numisma, et cela vient de nomos qui signifie ‘loi’. C’est pourquoi Aristote dit qu’elle reçoit son prix de la loi et non de la nature. Bien que son prix soit établi par l’homme...*” Oresme and Buridan, *Traité Des Monnaies Et Autres Écrits Monétaires Du Xive Siècle* (Jean Buridan, Bartole De Sassoferrato), p. 119.

¹²¹ This is repeated as well in the commentary on the *Politics* (p. 55), and in the *Super Marcum* (money as *fideiussor*; to 10, 23; p. 599); quoted in Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 194.

¹²² *First Commentary*, p. 346; *Second Commentary*, p. 360; quoted in *Ibid.*, p. 194.

be so established as to retain the same value more permanently” than do other goods.¹²³ Therefore, for money to be a guarantee for future exchange it must be able to buy in future the same things that it can buy in the present.¹²⁴

In the group of commentaries or questions on the *Politics* which Langholm relates to the Paris Averroist commentaries on the *Ethics*, written from 1271 to 1277, and that go one step further in accepting the lawfulness of *campsonia*, money-changing, both Vernani’s and the Oxford commentary, accept changes of money for money (money changes) if regulated by commutative justice: “equal must be given for equal.”¹²⁵ Therefore, exchanges of coins of different denominations and from different places brought about the same need in both Islamic and Christian jurists: to take the material content of coins as a parameter of reference to exchanging them.

d. Money instituted by law

A unique feature of the transmission in the Islamic world of the Aristotelian conception of *nomos*, convention or law, is that it was adapted and assimilated into Islamic or divine law, while the agreement or convention that led to use of money was interpreted as the *ijma’*, the consensus, of the Muslim community, as Dimahsqi translated and Ibn Khaldūn also later explained.¹²⁶ Money then came to be regulated by or under the jurisdiction of the *Sharī‘ah*. Again we find explicit mention of it in Miskawayh and Ibn Khaldūn, and statements that grant a divine character to money in al-Ghazālī and, again, in Ibn Khaldūn; coins must follow the standards established by Islamic jurisprudence. In this respect, Miskawayh went so far as to distort a quote of Aristotle’s *Ethics*, as we will see.

¹²³ Again within the explanation of money as a guarantee for future exchanges, transcribing also the section that says that money suffers from the same kind of fault that the rest of things (its value changes). *Sent. Eth.*, V, 9, to Aristotle, V, 5; 1133b13-4. Ibid., pp. 236-37. The Latin text goes: “*Sic ergo pro necessitate futurae commutationis numisma, id est denarius, est nobis quasi fideiussor quod si in praesenti homo nullo indiget sed indigeat in futuro, aderit sibi afferenti denarium illud quo indigebit.*” [73690] (...) “*Verum est autem quod etiam denarius patitur hoc idem quod aliae res, quod scilicet non semper pro eo homo accipit quod vult, quia non semper potest aequale, idest non semper est eiusdem valoris;*” (...) “*sed tamen taliter debet esse institutus, ut magis permaneat in eodem valore quam aliae res.*” [73691] Aquinas, “*Sententia Libri Ethicorum, Libro Iii Lectione Xiv Ad Librum V.*” *Sententia Ethic.*, lib. 5 l. 9 n. 9 and 10.

¹²⁴ Monroe already pointed out how indeed St. Thomas made “more definite the need of stability of value in the money material.” Arthur Eli Monroe, *Monetary Thought before Adam Smith* (New York: A. M. Kelley, 1966), p. 17. However, most of the literature has disregarded this aspect.

¹²⁵ Commentaries on the *Politics* by Guido Vernani, by Nicholas Trivet, plus a “family of commentaries” in question form to the *Politics*. Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, pp. 400-401.

¹²⁶ As mentioned, Dimashqī comments how the consensus (*ijmā’*) of the people is to prefer gold and silver as money. Dimashqī, *Eloge Du Commerce.*, p. 9 (Arabic); p. 22 (French); The origins of equivalences between coins, in Ibn Khaldūn, are also based on such a consensus: Ibn Khaldun, *Muqaddimat Ibn Khaldun.*, p. 251.

Ibn Sīnā (981-1037) had emphasized in *al-Ishārāt wa-t-Tanbīhāt* (*Book of Remarks and Admonitions*), the need for a law, imposed by a legislator, to guarantee transactions and justice.¹²⁷ A contemporary of Ibn Sīnā, Ibn Miskawayh (932-1030), wrote a treatise on ethics, *Kitāb ādāb tahdhīb al-akhlāq*, where he identifies *nomos* in Aristotle as the supreme law that emanates from God, money becoming the third instrument in justice administration, after the judge.¹²⁸ Hence, Miskawayh “colours religiously” Aristotle, or “Islamizes” him as Akalay states.¹²⁹ Money becomes thus an intermediary in the administration of justice, albeit a silent intermediary, a concept to reappear in the works of Dimashqī and in aṭ-Ṭūsī.¹³⁰ The interpretation of *nomos* as religious law, the *Sharī‘ah*, will continue from aṭ-Ṭūsī and extend to the literature on *Ethics* in the medieval Middle East and Asia.¹³¹

¹²⁷ “Since a human being is not such that on his own he achieves independence in his personal affairs except by sharing with another being of his type through the exchange and commutative contract that are made between them – each of them setting his companion free from some occupation which, if the companion himself were to undertake, many things would accumulate for that individual (...) – that is why it is necessary to have among people transactions and justice preserved by a law imposed by a legislator.” ‘Abd l’ ‘Alī al-Hussayn b ‘Abdallah Ibn Sīnā, *Ibn Sīnā and Mysticism. Remarks and Admonitions: Part Four*, ed. Shams Inati (London: Kegan Paul International, 1996). (chapter 4, ninth class, book 4), p. 82. Ibn Sīnā used extensively the *Nicomachean Ethics* in this work, according to Berman. Berman, 1978, p. 289. As Inati exposed, Ibn Sīnā’s *Ishārāt* was extensively commented, in particular, by Fakhr ad-Dīn ar-Rāzī and Naṣīr ad-Dīn aṭ-Ṭūsī, whose work we will see below. Ibn Sīnā, *Ibn Sīnā and Mysticism. Remarks and Admonitions: Part Four*, p. 2 (Inati’s Introduction)

¹²⁸ Miskawayh says to quote Aristotle while giving nothing but a distorted interpretation of the text: “*Dans son livre connu sous [le titre d’Ethique à] Nicomaque il dit: ‘La Loi (nomos) suprême émane de Dieu; le juge est une seconde loi venant [également] de Lui; la monnaie en est une troisième. La Loi de Dieu est le modèle de toutes les autres, c’est-à-dire que la Constitution (al-sharī‘a) le juge second et la monnaie, en troisième lieu, se règlent sur elle’.*” Miskawayh, *Traité D’ethique*, p. 181. See English translation in M. Abdul Haq Ansari, “The Ethical Philosophy of Miskawayh,” in *Miskawayh, Abū ‘Alī Ibn Muhammad (D. 1030). Texts and Studies*, ed. Fuaz Sezgin (Frankfurt am Main: Institute for the History of Arabic Islamic Science at the Johann Wolfgang Goethe University, 2000).p. 235.

¹²⁹ Akalay, *Histoire De La Pensée Économique En Islam Du 8ème Au 12ème Siècle: Le Marchand Et Le Philosophe*, p. 84. It seems that instead of the original text, his contact with Aristotle’s *Nicomachean Ethics* was through the readings and commentaries of other philosophers, among them Bryson. According to Walzer, the book is, indeed, basically a compilation of different materials from the Neoplatonic texts on *Ethics* available at the time, mainly from the late centuries of the Roman Empire. Among others the Neoplatonic Porphyry, Themistius, al-Kindī, and al-Farābī.R. Walzer, “Some Aspects of Miskawauh’s Tahdhīb Al-Akhlāq,” in *Miskawayh, Abū ‘Alī Ibn Muhammad (D. 1030). Texts and Studies*, ed. Fuaz Sezgin (Frankfurt am Main: Institute of the History of Arabic-Islamic Science at the Johann Wolfgang Goethe University, 2000).: 79-97, p. 79.

¹³⁰ “*La monnaie (...) est muette;*” (...) “*gardienne du juste, mais silencieuse.*” Miskawayh, *Traité D’ethique*.p. 181. “The function of the *Dīnār* is to maintain social justice (*al-‘adl al-madanī*, [civil justice]) in its own sphere. When social justice is established society and its cultural pattern will be maintained, otherwise they will be destroyed.” Quoted in Ansari, “The Ethical Philosophy of Miskawayh.”p. 235. Dimashqī names gold and silver (or the “substances” needed as means of exchange) as “silent” goods. Dimashqi, *Eloge Du Commerce*, p. 9 (Arabic); p. 22 (French); Aṭ-Ṭūsī, in the context of equality and justice in exchanges, explains that: “money is a just mediator between men, but it is silently just.” Therefore, he also concludes that, because of being silent, money needs of the assistance of a rational just arbitrator to assure justice in exchanges (the judge in Miskawayh’s). “From this discussion, it is obvious that the preservation of justice among men cannot be effected without these three things, viz. the Divine Commandment, a human arbitrator, and money.” aṭ-Ṭūsī, *The Nasirean Ethics*, p. 97.

¹³¹ In the *Akhlāq-i-Nāṣirī* (*Nāṣirīan ethics*), aṭ-Ṭūsī also misquotes Aristotle about the convention that defines the use of money: “Aristotle said that money is a just law, ‘law’ in his language signifying regulation,

Using Miskawayh's terminology of law and order in society, al-Ghazālī speaks of gold and silver as “judges” introduced by God; gold and silver are, indeed, “God's gifts”.¹³² Thus, money acquires a divine character that reappears in other authors, and is also made explicit in Ibn Khaldūn.¹³³

As we have seen, Ibn Rushd's text in Latin also rendered *nomos* as law.¹³⁴ Influenced or not by Ibn Rushd's reading of it, *nomos*, which Robert Grosseteste's group of translators rendered as *nummisma*, was also interpreted by Aquinas as law, as mentioned earlier. Money was, then, a convention by which to measure the need (necessity or demand) of things, but it was instituted as such by disposition of the law.¹³⁵ It was interpreted thus among Christian scholars from then on. Langholm refers to four figures in particular during the 13-14th centuries: Henry of Frieman, Peter of Palau, Guido Terreni and Gerald Odonis, who proved to be precursors of some later notions of Oresme and Buridan, and who, moreover, strengthened the idea that money was regulated by law, following Ibn Rushd-Aquinas' interpretation of *nomos*.¹³⁶ Indeed, they probably kept using the commentaries of both Ibn Rushd and Aquinas, to understand Aristotle's *Ethics*, as the sentence introduced by Odonis, and repeated later by Oresme, seems to prove: “*If faut savoir qu'en grec la monnaie se dit numisma, et cela vient*

administration, and similar notions. (This is the reason why the *Shari'ah* is called the Divine Law.) In the Nicomachean Ethics he says that the greatest law may be from God, that the second is of the order of the greatest, while the third is money. Thus, the law of Almighty God is an exemplar of other laws; the second law is an arbitrator, who must follow the Divine Law, while the third law follows the second.” at-Tûsī, *The Nasirean Ethics*, pp. 97-98 (and note 865).

¹³² “But value of these things are not equal. Therefore gold and silver work as judges for all things for fixation of value and for getting the things through their medium. So by the help of gold and silver their values are adjusted, although they have got no value of their own. God appointed them as judges of ascertainment of values and prices of all things and for their exchange.” Al-Ghazali, *Imam Gazzali's Ihya Ulum-Id-Din.*, vol. IV, pp. 95-96. al-Ghazali, *The Revival of Religious Sciences.*, p. 163.

¹³³ “*De plus, Dieu a créé deux ‘pierres minérales’ (ḥajarān ma‘diniyyān), l’or et l’argent, comme (étalon de la) valeur du capital.*” Ibn Khaldūn, *Ibn Khaldūn: Discours Sur L’histoire Universelle Al-Muqaddima.*, p. 605. What Monteil translates as « (étalon de la) valeur » is simply *qymah*, value. Ibn Khaldun, *Muqaddimat Ibn Khaldun.*, p. 363.

¹³⁴ See notes 108 and 112 above. I have, however, found no mention that supported Rosenthal's argument that Ibn Rushd identifies *nomos* in Plato with the *Shari'ah* in the Islamic context, and which could link Ibn Rushd to the interpretative tradition initiated by Miskawayh. “Averroes conceived of Politics in the same way as Muslims do of *Fiqh*.” E. I. J. Rosenthal, ed., *Averroes' Commentary on Plato's Republic* (Cambridge: Cambridge University Press, 1956), p. 256 (n. i.9).

¹³⁵ “669. Muestra lo dicho más extensamente. (...) Segundo, muestra que la necesidad es una medida según la verdad de las cosas. Segundo, de qué manera el dinero es una medida por disposición de la ley.” Thomas Aquinas, *Comentario a La Ética a Nicómaco De Aristóteles*, trans. Ana Mallea (Pamplona: EUNSA, 2000), p. 204.

¹³⁶ This law took progressively a more permanent character when money was identified with its metallic content. Taken as positive or statute law, it was placed progressively above the monarch, as mere guardian of it and the common good. Henry of Friemar (ca. 1245-1340) added that money was a measured institute also by human appointment, that of the sovereign but which “demands a certain permanence and invariability.” It is Guido Terreni (ca. 1265-1342) who explicitly interpretes Aristotle's phrase “it is in our power” to change or alter the money as the power of both prince and community. Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, pp. 519 & 522.

de nomos qui signifie 'loi'."¹³⁷ We will see them again in the second chapter, in relation to their positions against the debasement of the coin. The crucial more general appropriation or development is the idea that money is regulated and fixed by law: money although defined as representative of demand by convention or human agreement, comes to be fixed and determined by law. It is a discourse embedded from the beginning in Islamic texts on money and which, in the Latin world, takes form progressively from Aquinas to Oresme.¹³⁸

I.2. The need for the stability of the metallic value of money: money and law in the Christian and Islamic worlds

As noted in the previous section, a common element between Latin and Islamic traditions of commentary on Aristotle's texts was to conceive that money was made out of a precious and costly metal but regulated and defined by law. The implications this had on the definition of the value of money or on the way that law was articulated varied nonetheless in the different authors and contexts. Among Islamic authors, the character of that law defining money was clear: the divine law. The nature or character of that law in the Christian context, as a part of either natural or positive law, was not so evident or still needed more time to be properly defined. That said, all Christian scholars called for the stability of the value of the coin, while their Islamic counterparts did not even recognize that the value of the coin could fluctuate. As a reflection of Islamic jurisprudence, as we will see, in the Islamic context, the law regulating money had a permanent character with no parallels in the Christian context, although Christian scholars would tend towards strengthening this legal position. In the next section, we will see the relationship between law and money within Islamic and Christian contexts as their monetary systems develop.

¹³⁷ Oresme and Buridan, *Traité Des Monnaies Et Autres Écrits Monétaires Du Xive Siècle* (Jean Buridan, Bartole De Sassoferrato), p. 119; Gerald Odonis, (c. 1290-1347?), *doctor moralis*, in his "massive" commentary on the *Ethics*, whose lines later followed Buridan closely and from him Oresme, comments: "The word for 'money' in Greek derives from 'law'; in Latin *nummisma* could properly be called *legisma*." *Comm. Eth.*, V, 9; f.X₅ra; f.X₅vb; paraphrased in Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 521; It is basically the same sentence that Ibn Rushd introduced (see note above), proving that Odonis was probably using Ibn Rushd's commentary, even if he had access to the Aristotelian text. Oresme had to take it from Odonis, since Buridan, in his commentary on the *Ethics*, simply mentions that: "*C'est pourquoi Aristote disait que la monnaie n'existe pas par nature mais par le nom, et qu'il depend de nous de la rendre inutile.*" Oresme and Buridan, *Traité Des Monnaies Et Autres Écrits Monétaires Du Xive Siècle* (Jean Buridan, Bartole De Sassoferrato), pp. 45 and 163.

¹³⁸ By "positive law" in Alexander of Alessandria (1268-1314). Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 438.

I.2.1. Islamic jurisprudence on money and the monetary system in the medieval Islamic world

The mentioned “islamization” of Aristotelian monetary conceptions among Islamic scholars took place in consonance with, or was shaped by, Islamic jurisprudence. Islamic jurisprudence is that set of legal regulations that jurists and experts on Islamic religious sources, grouped in the different schools of jurisprudence, developed throughout the centuries. In monetary issues it defined the monetary system according to a set of canonic standards of weight and quality for gold and silver coins. These standards formed a monetary system of reference that was used to pay religious alms, taxes, dowries, heritage partitions, and other monetary transactions regulated by Islamic jurisprudence. A whole branch of this jurisprudence was dedicated to regulating changes in money and trade with metals, in order to avoid usury. This jurisprudence on *ṣarf*, money changes, like the literature on “changes” (*cambios*) which was to develop among Christian canonist and jurists, was also concerned equally with the question of usury.¹³⁹ Islamic jurisprudence on money formed a canonic system that regulated money and metal transactions according to the standards of reference fixed by weight, which has led Meloy to speak of a “monetary sunnah.”¹⁴⁰ The structure of the classical Islamic monetary system was bimetallic, based on a gold dinar and a silver dirham, plus petty copper coins or fulus, used as small change although with some qualifications. Both throughout the development of Islamic jurisprudence concerning commercial activities and exchanges, and the institutionalization of market control within the judicial system, religious scholars and officials, from the different schools of Islamic jurisprudence, attempted to control the currency and money changes.

a. The development and balancing of the bimetallic monetary system within justice administration

The origins of such a regulatory system of money may relate to the particular context in which Islam appeared and in which Islamic jurisprudence and administration developed. Ibn Khaldūn (1332-1406), taken here as historian and not as “economic thinker,” explained how in the early years of Islam, as a result of the simplicity of the new faith and the Bedouin character of the Arab tribes, the Persian monetary practice of minting coins (with the

¹³⁹ *Ṣarf* can be translated either as money changing or barter. In handbooks of jurisprudence, as Ibn Rushd’s *Bidayat*, the section on changes deals basically with transactions of metals and money, so it refers to changes with money. See *Kitāb aṣ-Ṣarf*, “book of changes” in: Ibn Rushd, *The Distinguished Jurist's Primer: Bidāyat Al-Mujtahid*.

¹⁴⁰ See: John L. Meloy, “The Merits of Economic History: Re-Reading Al-Maqrīzī’s *Ighāthah* and *Shudūr*” (Chicago, 2003), pp. 189 y 191.

sovereign's seal engraved) was substituted by the mere exchange of coins by weight.¹⁴¹ This could also have been the outcome of the monetary confusion of those early times, since, given the quick expansion of the Islamized Arab tribes, different coins from the various newly-conquered regions were circulating at the same time. The fact that coins were initially exchanged by weight is reflected in the various references in Islamic law sources and jurisprudence to gold and silver as metals, instead of to gold and silver coins, and in the explicit emphasis with respect to the weight of coins.¹⁴² The weight of the silver coin, to become the dirham of account or legal dirham, was already fixed with the second Caliph, 'Umar (634-644), who set it as the average weight of the silver circulating drachmas.¹⁴³ Yet, the major coins used were still the Sassanid and Byzantine units, which kept circulating, as Ibn Khaldūn recounts and as numismatic studies of the Umayyad period (661-750) prove.¹⁴⁴ The use of silver Sassanid coins in the east (Iraq and Iran) and gold and copper Byzantine coins in the west (Syria and Egypt) split the early Islamic Empire into two different metallic regions, a gold-circulating region in the west, and a silver-dominated region in the East.

Over time, the expansion of the empire and its commercial and fiscal needs progressively called for a centralized and fixed system of (minted) coins. The monetary reform of 'Abd al-Malik (685-705) attempted to introduce some order and resumed the minting of silver all over the empire.¹⁴⁵ 'Abd al-Malik also issued a new gold coin very similar to the Byzantine solidus or denarius to challenge the commercial hegemony of the latter.¹⁴⁶ The aim of 'Abd al-Malik's monetary reform was to standardize, unify and centralize

¹⁴¹ Ibn Khaldūn, *Ibn Khaldūn: Discours Sur L'histoire Universelle Al-Muqaddima*., in Book 1, Chapter 3 (About Dynasties), p. 407.

¹⁴² See *ḥadīth* mentioned above to which some scholars, like Ibn Rushd, as-Saqāṭī or al-Shayzarī, made reference (see note 81, chapter 1).

¹⁴³ Ibn Khaldūn, *Ibn Khaldūn: Discours Sur L'histoire Universelle Al-Muqaddima*., p. 407. Islahi recounts that Umar proposed initially to issue money of camel skins but that this idea was dismissed considering that it would lead to the extinction of the camel (a-Baladhuri, *Futuh al-Buldan*, 1983, p. 456), quoted in Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis (11-905 A. H./632-1500 A. D.)*., p. 47.

¹⁴⁴ Sassanid coins continued in circulation, although exchanged by weight. Ibn Khaldūn, *Ibn Khaldūn: Discours Sur L'histoire Universelle Al-Muqaddima*., p. 407. Ali Wijdan, "Islamic Coins During the Umayyad, Abbasid, Andalusian and Fatimid Dynasties," *Foundation for Science Technology and Civilisation* 4046 (2004)., p. 2.

¹⁴⁵ According to Ibn Khaldūn, the first to mint gold and silver coins was in fact Muṣ'ab b. Az-Zubayr in 689 in Iraq, under the orders of his brother 'Abd-Allāh, responsible of Ḥijāz. Then, based on Sa'īd b. al-Musayyab and Abū-z-Zināb, Ibn Khaldūn explains that in 693 caliph 'Abd-al-Malik ordered al-Ḥajjāj to resume again the minting of silver dirham. During the following two years, minting was resumed in the rest of the provinces of the Empire. Ibn Khaldūn, *The Muqaddimah: An Introduction to History*, trans. F. Rosenthal, vol. abridged and edited by N. J. Dawood (Princeton: Princeton University Press, 1967)., pp. 407-08.

¹⁴⁶ Ibn al-Ukhūwwa (1250/51-1329) also explained that the first coins to be struck by 'Abd al-Malik (b. Marwān) imitated the Roman coins with the dīnārs and the coins of the Chosroes with the dirhams. Muhammad ibn Muhammad Ibn al Ukhawah, *Ma'Alim Al-Qurbah Fi Ahkam Al-Hisbah* (1968)., p. 27. 'Abd al-Malik's dinar had a religious legend stamped on it, the Islamic declaration of faith, but no reference to the Caliph or any political authority. Only when Justinian II minted a solidus with his image did 'Abd al-Malik respond by graving his

the minting of coins, distinguishing good from false coins by minting gold and silver coins according to fixed standards. In fact, it was part of a broader project of reform at the political and administrative levels that attempted to centralize power, “Islamize” the administration, unify the fiscal system and impose Arabic as the official language in the Islamic world.¹⁴⁷

The question of whether those standards set by ‘Abd al-Malik were to become the legal money or money of account, *dīnār* and *dirham sharī‘ī* (legal or in accordance with the right path), in Islamic jurisprudence, or whether ‘Abd al-Malik minted his dinar and dirhams according to the standards previously set by Islamic jurisprudence, is not clear, as even Ibn Khaldūn reflects. Ibn Khaldūn leans finally to simply assessing that it was a result of the general consensus (*ijmā‘*) of the early Islamic period that the equivalence between the legal gold *dīnār* and the legal silver *dirham* was set in 7/10: 7 *dīnārs* (*mithqāl*, of 72 grains or 4.25 grams each) equal to 10 legal *dirhams* (*dirhams al-kayl*, 50.4 grains or 2.97 grams each).¹⁴⁸ Copper coins had no regulation concerning weight and were usually exchanged by tale (by unit). Be it a result of such consensus or of ‘Abd al-Malik’s reform, those rates and weights were to be the canonic monetary standards of reference fixed by Islamic law, which set religious taxes and legal obligations by those standards. Ibn Khaldūn explains how these canonic standards (*ad-dirham wa ad-dīnār ash-sharī‘īyn*) are unique (*muttaḥida*) and without changes or differences (*lā ikhtilāfa fihā*), serving thus as reference and measure for the payment of religious taxes. They became the money of account in the Islamic world for the entire medieval period (a kind of “ghost money” in Cipolla’s terminology for the Christian context). Ibn Khaldūn contrasted them with the current or vulgar (*al-muta‘ārafah*) circulating coins that varied in each period and place.¹⁴⁹ Those coins were defined by weight *a priori* but

figure on the new dinar. Wijdan, "Islamic Coins During the Umayyad, Abbasid, Andalusian and Fatimid Dynasties." p. 2. According to numismatic studies, Islamic dīnārs and dirhams made their appearance in 696/7 and 698/9 respectively, while non-pictorial Islamic copper coins were released in 705/6. Andrew S. Ehrenkreutz, "Money, *Handbuch Der Orientalistic. Erste Abteilung* (...). Leiden: E.J. Brill, 1977," in *Monetary Change and Economic History in the Medieval Muslim World*, ed. Jere L. Bacharach (Aldershot: Ashgate, 1992), p. 92.

¹⁴⁷ Essid, "La Monnaie Arabe Et Musulmane." p. 15. Cipolla, based on Sauvage's documents, also explains that it was result of the monetary matters, disorder and private and public speculations that the prior monetary chaos has led to. Carlo M. Cipolla, *Money, Prices, and Civilization in the Mediterranean World, Fifth to Seventeenth Century* (New York: Gordian Press, 1967), p. 19.

¹⁴⁸ Notice that they are defined according to weight. Ibn Khaldun, *Muqaddimat Ibn Khaldun*, p. 251; Ibn Khaldūn, *Ibn Khaldūn: Discours Sur L'histoire Universelle Al-Muqaddima*, p. 410 ; The word *ijmā‘* used by Ibn Khaldūn is the same term that previous scholars had used for the convention or agreement that led to the use of money in Bryson, as we saw. For the equivalences see also: Joaquín Vallvé, "Notas De Metrología Hispano-Árabe. Iii. Pesos Y Monedas," *Al-Qantara* V, no. 1 & 2 (1984), p. 148.

¹⁴⁹ Ibn Khaldūn dedicates a section of the *Muqaddimah* to explain the dichotomy between “legal” coins (*sharī‘īyah*) versus current (actual circulating) coins. Ibn Khaldun, *Muqaddimat Ibn Khaldun*, pp. 252, 251-252. « espèces légales » versus « espèces réelles ». Monteil translates that those legal monetary standards were invariable fictive units (“poids fictif invariable”). Ibn Khaldūn, *Ibn Khaldūn: Discours Sur L'histoire Universelle*

when there was no seal or sign of their value they were exchanged by weight.¹⁵⁰ The exchange of coins by weight seems to have been quite a common practice, given the number of coins of different origin and denomination in circulation, even until the end of the 14th century, when Ibn Khaldūn wrote.¹⁵¹ The canonic standards set in Islamic jurisprudence thus became the reference and the means of avoiding confusion and granting stability to the system.¹⁵²

It is in this context that authors like Miskawayh ascribed both the law of the judge and of the coin to the divine law, *Sharī'ah*, while an almost divine character was ascribed also to the currency, as we saw in al-Ghazālī, Ibn Rushd and emerging elsewhere in the literature.¹⁵³ Akalay argues then that, in this respect, the introduction of the divine law grants the currency a permanent character that it would not have otherwise.¹⁵⁴ It does not prevent, however, the possibility of temporal authorities changing its value, always in metallic terms, although attempts to control or limit it, always use the Islamic standards as models of reference.

Money and its minting was regulated in the institution of the minting house, *as-sikka* (the Spanish *ceca*).¹⁵⁵ According to Ibn Khaldūn, the *sikka* not only monopolized the minting of money but prevented fraud (*ghishshi*) or damage. In this way, the mark of the sovereign stamped on the coin was a guarantee of its quality and purity (*istijādātī wal-khūluṣ*) as well as of its weight (*nuqīsha*) and value in terms of precious metals.¹⁵⁶ The director of the *sikka*

Al-Muqaddima., pp. 410-11. For an explanation of the different denominations of money and between money of account and real money in the medieval Muslim world see also: Pedro Chalmeta Gendrón, "Monnaie De Compte, Monnaie Fiscale Et Monnaie Réelle En Andalus" (Paris, 1988)..

¹⁵⁰ « l'on a donné à chaque pièce d'or ou d'argent le poids déterminé et fixé à l'avance (...) si elles n'ont pas un poids déterminé, on ne les prend qu'au poids » Ibn Khaldūn, *Ibn Khaldūn: Discours Sur L'histoire Universelle Al-Muqaddima*., p. 406. Ibn Khaldun, *Muqaddimat Ibn Khaldun*., p. 249.

¹⁵¹ « Dans l'Orient contemporain, il n'existe pas de monnaie à valeur déterminée. On n'utilise pièces d'or et d'argent, dans le commerce, qu'en les prenant au poids et en employant pour cela des étalons correspondant à un nombre donné de pièces. La Monnaie grave la formule : « In n'y a aucune divinité, en dehors de Dieu » et la prière pour le Prophète, avec le nom du souverain, comme au Maghreb. Ibn Khaldūn, *Ibn Khaldūn: Discours Sur L'histoire Universelle Al-Muqaddima*., p. 409.

¹⁵² « Plus tard, les dynasties musulmanes crurent et prospèrent. Il devint nécessaire de fixer aux pièces d'or et d'argent des valeur et des poids spécifiques, en accord avec la loi religieuse, pour ne plus avoir à le faire à chaque instant. » Ibid., p. 411 ; Ibn Khaldun, *Muqaddimat Ibn Khaldun*., p. 252.

¹⁵³ Especially when Quranic inscriptions are imprinted in the coin. See al-Sunāmī's treatise on *ḥisbah*, 13-14th century. Abū Yūsūf as commented by 'Umar b. Muḥammad al-Sunāmī in his *Kitāb Niṣāb al-Iḥtisāb* (fl. 7th-8th/13th-14th Century). Izzi al-Din, *The Theory and the Practice of Market Law in Medieval Islam. A Study of Kitāb Nisab Al-Ihtisab of Umar B. Muhammad Al-Sunami (Fl. 7th-8th/13th-14th Century)*., 89.

¹⁵⁴ Akalay, *Histoire De La Pensée Économique En Islam Du 8ème Au 12ème Siècle: Le Marchand Et Le Philosophe*., p. 84.

¹⁵⁵ Its activities are explained in the *Muqaddimah*, besides those of the institution of *ḥisba* or supervision of the markets Ibn Khaldun, *Muqaddimat Ibn Khaldun*., p. 219. Ibn Khaldūn, *Ibn Khaldūn: Discours Sur L'histoire Universelle Al-Muqaddima*., p. 352 & 369.

¹⁵⁶ Ibn Khaldun, *Muqaddimat Ibn Khaldun*., pp. 219-20 ; Ibn Khaldūn, *Ibn Khaldūn: Discours Sur L'histoire Universelle Al-Muqaddima*., p. 351.

(*ṣāhib hadhihi-l-wazīfa*), with authority over all monetary issues, was a religious position that, according to Ibn Khaldūn, was initially one of the Caliph's own responsibilities.¹⁵⁷

Although currency was initially the domain of the Caliph, with the general development of the administration of the Empire, over time the management of money gained a certain independence and passed to judges and public officials, falling into the domain of justice administration. Al-Māwardī (974-1058), the political theorist of the Abbasid Caliphate, had already explained the structure of law and power in the Caliphate.¹⁵⁸ Concerning economic issues, al-Māwardī based the administration of justice on three pillars: the judge, or Chief Judge (*Qāḍī al-Qudāt*), named by the Caliph, the tribunal for the restitution of abuses, and the *ḥisbah* or market supervision. The purpose of the whole structure was to control the fiscal apparatus, defend private property and regulate transactions in the marketplace.¹⁵⁹ Management of the system came to be connected to the elite of *ʿulama* and jurists, learned men in Islamic law or Islamic jurisprudence, which formed what Akalay defines as a theological-juridical organization of pyramidal form, headed by the Caliph.¹⁶⁰ The peak of such a pyramid was soon to be truncated. With time, the power of the Caliph would become basically nominal, while temporal power would be absorbed by sultans and their emirs. This would create a whole series of possibilities for delicate equilibriums and alliances between the sultans and emirs, on the one hand, and the elite of scribes and jurists who regulated the instruments of power, on the other, to profit from the minting of money, with inevitable consequences as well for the management of money.¹⁶¹

The identification of money with metal, as reflected in the canonic standards, is based on the assumption that the value of money (and metal) is not affected by changes in the supply of metal or that, at least, a certain equilibrium between the values of gold and silver

¹⁵⁷ Ibn Khaldūn, *Ibn Khaldūn: Discours Sur L'histoire Universelle Al-Muqaddima.*, p. 352

¹⁵⁸ Abul-Hassan Ali al-Mawardi, *Les Statuts Gouvernementaux Ou Règles De Droit Public Et Administratif*, trans. Fagnan E. (Paris: Editions Le Sycomore, 1982).

¹⁵⁹ Akalay, *Histoire De La Pensée Économique En Islam Du 8ème Au 12ème Siècle: Le Marchand Et Le Philosophe.*, pp. 163-171.

¹⁶⁰ Ibid., p. 170.

¹⁶¹ For the game of alliances and struggles between the factions in power and the elite of religious jurists and scholars during the Mamlūk period see Lutz Wiederhold's study: Lutz Wiederhold, "Legal-Religious Elite, Temporal Authority, and the Caliphate in Mamluk Society: Conclusions Drawn from the Examination of A "Zahiri Revolt" In Damascus in 1386," *International journal of Middle East studies* 31, no. 2 (1992).; the high level of rotation in the administration is an indicator of the power struggles during the period. See data about Mamlūk officials in: Bernadette Martel-Thoumian, *Les Civils Et L'administration Dans L'état Militaire Mamlūk (IXe/Xve Siècle)* (Damascus: Institut Français de Damas, 1991)..

may be preserved.¹⁶² Indeed, it seems that gold-silver relative rates maintained some stability during important periods, with the exception of particular crises and times of general political disruption. Even later, during the Mamlūk period that experienced the impact of significant distortions in bullion flows, substantial stability was achieved, as well, between gold and silver coins.¹⁶³ In any case, despite the series of alterations and manipulations that different sovereigns introduced, the dinar of al-Malik seems to have been used as a reference in terms of weight until the 12th and 13th centuries.

b. The argument for a stable monetary unit in Islamic jurisprudence

The four “official” schools of jurisprudence offered slightly different interpretations and applications for how to handle and exchange money.¹⁶⁴ The argument for a stable monetary system is, in any case, a concern of the majority.¹⁶⁵ The argument Ibn ‘Abdūn gave to support his claim about the monopoly of minting coins is that only by maintaining that monopoly, could the monetary stability of the country be maintained.¹⁶⁶ The Malikī School, dominant in al-Andalus and North Africa, professed a “firm stand in favor of stable money.”¹⁶⁷ The Shāfi‘ī scholars considered that the value of currency must be kept unchanged, according to the cannonic rates that fix the equivalences between dinars and dirhams.¹⁶⁸ Exchanges of *dīnārs* and *dirhams* were considered null or not satisfied when involving counterfeit (usually silver)

¹⁶² “[Shawāmil] explique que (...) la valeur de l’or est normalment – à poids égal et sauf altération – dix fois celle d’argent: `parce que dix , écrit-il, est la limite extrême des unités.” Brunschvig, “Conceptions Monétaires Chez Les Jurists Musulmans (Viiiie-Xiiie Siècles).” p. 2.

¹⁶³ “La stabilité du taux de change des monnaies d’or et d’argent est en effet extraordinaire.” Eliyahu Ashtor, *Les Métaux Précieux Et La Balance Des Payements Du Proche-Orient À La Basse Epoque* (Paris: S.E.V.P.E.N., 1971)., pp. 109-10.

¹⁶⁴ The four orthodox schools of Islamic jurisprudence, Hanafi, Hanbali, Shāfi‘ī y Maliki, were already fully established by the sixth century. For more information about their genealogy, development, and areas of influence see: Ira M. Lapidus, *A History of Islamic Societies* (Cambridge: Cambridge University Press, 2002)., p. 135; and the introduction to Muslim theology in G. Anawati and L. Gardet, *Introduction À La Théologie Musulmane* (Paris: Vrin, 1970)., 1970. Main differences appeared in which are the cases and circumstances that may incur in usury, *ribā*, or in non-permitted speculative operations with an uncertain level of risk (*ḡarar*) involved. Brunschvig, “Conceptions Monétaires Chez Les Jurists Musulmans (Viiiie-Xiiie Siècles).”, p. 3.

¹⁶⁵ The Hanafi‘i School was nevertheless more open concerning changes of money for money and the development of certain legal instruments (*hiyal*) that tried to escape the condemnation against usury, which were opposed by the Shāfi‘ī School. Brunschvig, “Conceptions Monétaires Chez Les Jurists Musulmans (Viiiie-Xiiie Siècles).”

¹⁶⁶ “En el país no debe correr otra moneda que la de la ceca oficial, porque la variedad de cecas da motivo para que se desvalorice la moneda, se multipliquen los cambios y las circunstancias económicas se alteren y se salgan del curso ordinario.” Muhammad b Ahmad Ibn ‘Abdūn, *Sevilla a Comienzos Del Siglo Xii: El Tratado De Ibn ‘Abdūn [Traducción Del Risāla Fī L-Qadā’ Wa-L-Hisba (S. V/Xi-Vi/Xii) De Ibn ‘Abdūn]* (Madrid: 1948)., p. 176-77. Al-Nawawī, Syrian scholar of the 13th century, also defended that “it is a prerogation of the ruler to mint or issue money” as quoted in Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis (11-905 A. H./632-1500 A. D.)*, p. 49, see note 6.

¹⁶⁷ Baeck, *The Mediterranean Tradition in Economic Thought*, p. 107.

¹⁶⁸ Ibíd. Meloy, “The Merits of Economic History: Re-Reading Al-Maqrīzī’s Ighāthah and Shudūr”, pp. 189 & 191.

coins.¹⁶⁹ Counterfeit coins were unacceptable in any case, whether the counterfeiter was the moneychanger or the authorities. The main concern however was the moral behaviour of the economic agent. A saying of the Prophet Muḥammad refers to the prohibition from breaking coins.¹⁷⁰ Here again the focus was on the individual or economic agent who broke the coin, not on the possibility of the political authorities debasing it.

The economic base of the legal community was integrated into the system of *waqfs* or religious endowments, institutionalized around the mid-8th century, a period in which the legal community established and strengthened its independent power. The property rents that wealthy individuals gave as charity to religious congregations were exempt from taxes once they were designated as *waqf* and, as *waqf*, served to finance religious schools and institutions.¹⁷¹ Religious scholars and jurists developed their careers within each of the competing schools of jurisprudences in schools, mosques or within the judicial and administrative apparatus, which included the institution of *ḥisbah* or market supervision. Depending on fixed monetary rents, Islamic jurists would use their positions in the administration to take a stand on a stable monetary unit.

c. The institution of *ḥisbah* or market supervision

The institution of *ḥisbah* was the channel through which jurists and scholars set moral standards in the marketplace, as well as the control of weights and measures, including those related to money and changes with money. The historical development of the institutions for the control or supervision of markets is closely related to urban development in the Mediterranean and goes beyond the Islamic context.¹⁷² States or centralized political structures tried usually to institutionalize these forms of market administration in order to subtract revenues from trade and to keep under control both the level of prices and the

¹⁶⁹ For Mālik the exchange is void if there are counterfeit coins, in contrast to the opinion of Abū Ḥanīfa, and so the number of coins in exchange must vary “till the value of exchange *dirhams* is equal to the *dīnārs*.” The difference is not so big as we consider that Abū Ḥanīfa permits to substitute the counterfeit coins and defines the exchange as void when the counterfeit *dirhams* are too many. However if those counterfeit *dirhams* are returned the exchange is only void in the rejected coins. Ibn Rushd, *The Distinguished Jurist's Primer: Bidāyat Al-Mujtahid*, p. 235. No case is recounted of counterfeit *dīnārs*, although yes of gold of different qualities. When speaking about counterfeit coins normally it is referring only to *dirhams*.

¹⁷⁰ Abu Dawud, *Sunan*, vol. 3, p. 286; quoted in Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis (11-905 A. H./632-1500 A. D.)*, p. 49.

¹⁷¹ For more information about this system, see: Timur Kuran, “The Provision of Public Goods under Islamic Law: Origins, impact, and limitations of the waqf system,” *Law and Society Review* 35, 4 (2001): 841-898.

¹⁷² Rodinson traced the existence of specialized centers for market transactions and specialized agents in charge of the regulation and control of markets back to Mesopotamian cities and Assyrian colonies in Anatolia during the second millennium before the Christian era: The Babylonian form of a chamber or house of commerce ruled by a *wākil tamkāri*; or the *Rabī maḥīrim* or “chief of the market” in Paleo-Assyrian texts. See W. F. Leemans, *The Old-Babylonian Merchant*, 1959; quoted in Rodinson, “Prefacio.”, pp. XXXIX-LXII.

subsistence of cities. In the Greek-Roman world the institution was directed by the *agoranomos-aedile*, market inspector.¹⁷³ It was then in Palmyra and other Syrian commercial locations through which the institution entered into the Islamic context with the Arab conquest, the *agoranomos-aedile* becoming the *muhtasib* or official in charge of the institution of *hisbah* in Islamic cities.¹⁷⁴

Over time, the *hisbah* institution combined local practices of commercial activity with religious regulations and principles, coming to be intrinsically linked with the religious apparatus within public administration, and thus an instrument of censure and control within the urban setting.¹⁷⁵ The activity of the *muhtasib* was summarized in the precept of *hisbah*: “commanding right and forbidding wrong” (*al-amr bi-al-ma'rūf wa-al-nahy 'an al-munkar*).¹⁷⁶ This precept included a religious duty for the *muhtasib* to control the moral standards of urban public life as well as economic responsibilities concerning a fair organization and functioning of markets, which included: guaranteeing fairness in exchanges; regulating commercial activities according to what is permitted and forbidden in Islamic law; controlling the system of magnitudes, weights, prices, rates and measures in exchanges; as well as imposing sanctions on monopolistic, usurious or fraudulent behavior.¹⁷⁷ Hence, the

¹⁷³ The *agoranomos-aedile* became a high municipal functionary in the Roman times with a benefactor and liturgical character, helped by other officials in the inspection of measures and weights in the market. The religious aspects of the position are mentioned in Plato's *Laws*, see Foster, "Agoranomos and Muhtasib.", pp. 130-31. The first author I have recounted to make the link between the Islamic *muhtasib* and the Byzantine *agoranomos* was Gaudefroy-Demombynes in 1947, quoted in G. Marçais, "Considérations Sur Les Villes Musulmanes Et Notamment Sur Le Rôle Du Muhtasib," *Receuil de la Société Jean Bodin* 6 (1954).. In the Roman Empire the municipal functionary supervising the market in the forum had to “assurer l'approvisionnement de la ville en denrées abondantes et à des prix raisonnable,” Rodinson, "Prefacio.", p. LIX.

¹⁷⁴ Institutional transmission that took place not in a simple or direct way; Rodinson, "Prefacio.", p. LXI.

¹⁷⁵ The “Islamic” origins of the “lord of the market” go back to the times of the Prophet and the figure of the chief/representative of the market, the *āmil 'alā l-sūq*: a figure basically in charge of the collection of market taxes. Collection of fines and market taxes were also among the functions of the *agoranomos*. Foster, "Agoranomos and Muhtasib.", p. 131; According to Essid, it is recorded that the prophet named a woman as the first market supervisor in Medina, Samrā' bint Nuḥayk al-Asadiyya. Essid, *A Critique of the Origins of the Islamic Economic Thought*., p. 116; Chalmeta mentions also another woman in Medina, al-Shifā' bint 'Abd Allāh, as *āmilat 'alā l-sūq*, (what would translated as “lady of the market”); and for Mecca, following the testimony of Ibn 'Abd al-Barr (*Istī 'āb*, n.º 984) in the *ḥadith*, Chalmeta mentions that Muḥammad, after occupying the city, named a man for that position, Sa'īd b. Sa'īd b. al-Ās. The position was initially associated more with respecting local customs and traditions, part of pre or a-Islamic local framework. Chalmeta Gendrón, "El "Señor Del Zoco" En España : Edades Media Y Moderna : Contribución Al Estudio De La Historia Del Mercado.", pp. 53, 57, 372 & 623. The source comes probable from Muḥammad al-Dasūqī al-Shahawī, *al-Ḥisbah fī al-Islām* (Cairo, 1962): 103-104, quoted in Izzi al-Din, *The Theory and the Practice of Market Law in Medieval Islam. A Study of Kitāb Nisab Al-Ihtisab of Umar B. Muhammad Al-Sunami (Fl. 7th-8th/13th-14th Century)*., p. 25.

¹⁷⁶ Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī's Ighāthah and Shudūr", pp. 196-97.

¹⁷⁷ Essid, *A Critique of the Origins of the Islamic Economic Thought*., pp. 111 & 113; Pedro Chalmeta commented that, among those competencies, some scholars included the prohibition of usury and of those sales implying certain degree of uncertainty. Analyzing juridical treatises within the literature of *hisbah*, he warned about the difference between what jurists considered to be the theoretical attributions of the *muhtasib* and their

muḥtasib and treatises dedicated to its activity dealt with price fluctuations, exchange rates and, consequently, money, its quality and the problems related to money-changes in order to avoid usurious practices.¹⁷⁸

In the literature and treatises that emerged in relation to the institution of *ḥisbah*, numerous authors, from Ibn ‘Abdūn’s treatise on *ḥisbah*, written in twelfth-century Seville, to al-Nawāwī in thirteenth-century Syria, advocated respect for the official royal coin as well as the monopoly and control over its coinage to prevent fraud and manipulation of the coin.¹⁷⁹ How this was reflected in the actual power of the *muḥtasib* to control the alloy of coins and the prohibition on the circulation of false coins is, however, difficult to assess.¹⁸⁰

I.2.2. Monetary systems, money and law in the medieval Latin world

In the Latin Mediterranean, as well, a similar dichotomy between monetary systems of reference (“ghost money”) and actual systems of coins in circulation emerged in the medieval period. However, the region did not enjoy the same homogeneity as the Islamic world in terms of a single legal system of reference.¹⁸¹ Additionally, the process of monetization of

practical implementation; see Chalmeta Gendró, "El "Señor Del Zoco" En España : Edades Media Y Moderna : Contribución Al Estudio De La Historia Del Mercado.", pp. 611-612; Gap, which those same authors were also aware of, as in the case of al-Māwardī. (Ibid. p. 613); for the relation of *ḥisbah* literature with the system of weights and measures see: Wood, *Medieval Economic Thought*.; for its more moral or individual dimension see: Michael Cook, *Commanding Right and Forbidding Wrong in Islamic Thought* (Cambridge: Cambridge University Press, 2000).

¹⁷⁸ The *Kitāb aḥkām al-sūq*, the oldest text of this gender, by the Hispanic-Arab Yaḥyā b. ‘Umar (828-901), explains how among to look after the alloy of coins and against the false money is among the different duties the *muḥtasib*, in addition to the supervision of weights and measures. The autor lived mostly in North-Africa, *Ifriqya*. The *Nihāyat al-rutba fī ṭalab al-ḥisba* by the Syrian *cadī* and physician al-Shaysarī (‘Abd al-Raḥmān b. Naṣr, m. 1193), speaks about money-changers and goldsmiths; and also of the prohibition of mixing two different qualities of the same substance. Chalmeta Gendró, "El "Señor Del Zoco" En España : Edades Media Y Moderna : Contribución Al Estudio De La Historia Del Mercado.", pp. 300, 303 and 373. According to Essid, the *muḥtasib* “was also expected to enforce standards for weights and measures, to check the fineness of coins, and to prevent the merchants from practising usury;” Essid, "Islamic Economic Thought.", pp. 79-80.

¹⁷⁹ “En el país no debe correr otra moneda que la de la ceca oficial, porque la variedad de cecas da motivo para que se desvalore la moneda, se multipliquen los cambios y las circunstancias económicas se alteren y se salgan del curso ordinario.” Ibn ‘Abdūn, *Sevilla a Comienzos Del Siglo Xii: El Tratado De Ibn ‘Abdūn [Traducción Del Risāla Fī L-Qadā’ Wa-L-Hisba (S. V/Xi-Vi/Xii) De Ibn ‘Abdūn]*., p. 176-77. Al-Nawawī, Syrian scholar of the 13th century, also defended that “it is a prerogative of the ruler to mint or issue money” as quoted in Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis (11-905 A. H./632-1500 A. D.)*., p. 49, see note 6.

¹⁸⁰ At least, it is not among the “real” responsibilities the functionary in charge of the *hisba* office had, according to Chalmeta, which is in clear contrast to those theoretical functions listed in the juridical texts. Chalmeta Gendró, "El "Señor Del Zoco" En España : Edades Media Y Moderna : Contribución Al Estudio De La Historia Del Mercado.", pp. 615-619 and 611-614.

¹⁸¹ For the discussion about the definition of those “ghosts moneys” or moneys of account see mentions to Usher and Bloch’s works in: Cipolla, *Money, Prices, and Civilization in the Mediterranean World, Fifth to Seventeenth Century*., p. 50-51.

economic transactions took place at a lower level and later stage than it did in other regions of the Mediterranean.

a. The development of monetary systems in Latin Mediterranean

North/Central European monetary circuits belonged to the Carolingian monetary system based on silver but consisted mainly of minor coins. Larger-denomination coins were introduced only later on, with increasing monetization of exchanges and monetary complications from the 1200's on.¹⁸² Standards set by the Carolingian monetary reform, defined according to a system of silver weights, became with time the system of reference or the money of account in most of Western Mediterranean Europe. The Carolingian monetary system of reference was based on three units: pound (*libbra* or *lira*), shilling (*sou* or *soldo*) and pence (*denier* or *denaro*), equivalencies between them being: 1 pound = 20 sous = 240 deniers.¹⁸³ Consequently, pennies formed traditionally the small change and then, large silver coins such as the *grosso*, or (plural) *grossi*, were introduced first in Venice and other cities of northern Italy.¹⁸⁴ In Italy, the introduction of gold coins took place around 1252, in Genoa, and from there extended progressively to the rest of Western Europe in the 14th century.¹⁸⁵ Those first gold coins were also copies of the Muslim ones.

In contrast, al-Andalus and later Castile were part or an extension of the bi-metallic Islamic monetary circuit of gold and silver, as were other Muslim areas in the Mediterranean (the south and east Mediterranean, including European Muslim areas of Sicily and Spain), plus Byzantium, which had been using gold coins for the entire medieval period, as higher-denomination coins.¹⁸⁶ MacKay has shown how even after the reconquest of the Iberian Peninsula and the establishment of Christian kingdoms there, the monetary circuit remained

¹⁸² Sargent and Velde, *The Big Problem of Small Change*., pp. 13, 72 & 78. Sargent & Velde refer to Europe, but it is important to take into consideration that when they speak of Europe, at least in this context, they are basically focusing in the Carolingian monetary system or Carolingian sterling area (silver-based), that means contemporary France, Central Europe, and some northern regions in Spain and Italy, however without considering other parts of Europe, particularly Byzantium, central and southern Spain and South of Italy.

¹⁸³ Referred as: "Lb. s. d.", see Richard A. Goldthwaite and Giulio Mandich, *Studi Sulla Moneta Fiorentina: (Secoli Xiii-Xvi)* (Firenze: Olschki, 1994)., pp. 10-11

¹⁸⁴ Silver Denarius in contrast to the gold Muslim dinar. N. J. G. Pounds, *An Economic History of Medieval Europe* (London: Longman Group Limited, 1974)., p. 115; Penny meant originally money. Later, silver coin's value was expressed in pence, keeping this usage as referential. Sargent and Velde, *The Big Problem of Small Change*., p. 79. For the first *grossi* of silver see Robert S. Lopez, "Prima Del Ritorno All'oro Nell'occidente Duecentesco: I Primi Denari Grossi D'argento, *Rivista Storica Italiana* Lxxix. Naples, 1967," in *The Shape of Medieval Monetary History* (London: Variorum Reprints, 1986)..

¹⁸⁵ Sargent and Velde, *The Big Problem of Small Change*., p. 80. "victory of gold in almost every part of Europe by the middle of the fourteenth century;" Watson, "Back to Gold and Silver.", p. 7.

¹⁸⁶ "In monetary terms, Byzantium seems to have belonged to the East rather than to Europe". Watson, "Back to Gold and Silver.", p. 4 (notice the particular definition of Europe Watson portrays).

part of that “Islamic” monetary system. The frontier or war context determined in this way the patterns of monetary flows since, although Christian kingdoms enjoyed a much lower level of “monetization” than their Muslim neighbours, they had access to their gold and cash through the *parias*, levies received from Muslim kingdoms in return for peace.¹⁸⁷ In this way, Christian monarchs minted their own gold and silver coins following those Muslim coinages from the 12th up to even the 15th century, such as the *maravedí* or the *dobla*, gold coins, or the *blanca*, silver coin; with Alfonso VIII’s *maravedí* first coined in 1172.¹⁸⁸ In contrast, Aragon and Catalonia formed part of the ‘Carolingian sterling area.’

Hence, as MacKay’s study corroborates, the monetary structure of every region was determined by whether or not it belonged to particular metallic and commercial circuits. The monetary units, then, shifted depending on the strength of every commercial area or region at any particular moment. In this sense, just as Iberian kingdoms and Italian cities copied golden Muslim coins in the 12 and 13th centuries, Near Eastern regions also copied Venetian coins in the 14th and early 15th centuries, according to shifts in commercial trends.¹⁸⁹

The centralization of the minting of coins and its monopoly was an ongoing process during the late medieval period; controlled by the political authority, the prince, with few exceptions, when privileges were granted to certain vassals and nobles.¹⁹⁰ Medieval codes of law, either Visigoth, Carolingian or later *fueros*, granted the prince the right to coin money

¹⁸⁷ For example, the *parias* that Alfonso VI (1065/72 – 1109) received from the kingdom of Granada amounted to an initial sum of 30.000 dinars and annual payments of 10.000. MacKay, *La España De La Edad Media. De La Frontera Hasta El Imperio (1000-1500)*., p. 28.

¹⁸⁸ Although in 1221 the minting of Castilian *maravedís* stopped, they continued being the Castilian money of account. Ibid., p. 62.

¹⁸⁹ The *ifrantī*, Arabic word for ducat or florin, became the “current and most desired coin” in all major cities of Middle East, (in Cairo, Old Cairo, Syria, Asia Minor, Hijāz, Yemen). From Ibn Taghrī Birdī’s chronicle, cited in William Popper, “Egypt and Syria under the Circassian Sultans 1382-1468 A. D.: Systematic Notes to Ibn Taghrī Birdī’s Chronicles of Egypt (Continued),” (Berkeley: University of California Press, 1957)., p. 47. Indeed “In 1425, the Egyptian dinar was debased to match the weight of the great quantities of Italian coins then circulating in Egypt.” Miskimin, *The Economy of Early Renaissance in Europe, 1300-1460.*, p. 155. It similarly occurred with silver coins. Counterfeiting Almohads half dirhams, the so-call millares, were minted in “Western Europe” during the 13th century (including Toulouse Count) to commerce with North African ports (Bougie, Ceuta, Oran, and Tlemcen), and so had Arabic legends stamped on them, issue that raised complaints from the Papacy. So was also practiced in the Christian kingdoms of the East. Indeed “St. Louis (...) had persuaded Innocent IV to ban the striking of coins with Muslim legends in the East.” Watson, “Back to Gold and Silver.”, p. 12. And at the end of the 13th century, regions beyond the jurisdiction of the Pope, kept striking those coins called millares (in Provence with Charles I, Tarascon & Montpellier mint; and Aragon, with Jaime I, Majorca mint). For the economic interests of the Papacy in North Africa and its policy in the region see: Robert S. Lopez, “A Propos D’une Virgule: Le Facteur Economique Dans La Politique ” in *The Shape of Medieval Monetary History* (London: Variorum Reprints, 1986)..

¹⁹⁰ In France process completed by 1319. See Miskimin, *Money, Prices, and Foreign Exchange*, quoted in Wood, *Medieval Economic Thought.*, p. 108,

and to receive money from the minting, as *seigniorance*.¹⁹¹ They forbade the counterfeiting of coins from competing minting houses or individuals in an attempt to control the minting and circulation of coins in a monetary system that was decentralized and barely developed. The right to actually define the value of a currency and then to change it, was not as openly awarded to the monarch. That this was not the case was soon reflected in the reactions of clerics, nobility and Christian jurists to the manipulation of the coin, when monetary transactions spread and the monetary system developed, as we will see in the next chapter.

As Wood states, and also occurred with the establishment and control of weight and measures, the control over coinage coincided with the establishment of sovereign powers over a people.¹⁹² It involved a clash of powers between the monarchs and those groups more directly affected by changes in the (face) value of a coin, the nobility, on the one hand, and monarchs and clergy, backed by the Church, on the other. According to Spufford, from the 11th to the 13th century there was a process of bargaining in France, the Low Countries and Spain, in which princes gave up their right to change the coinage at regular intervals, receiving in return other rights to extend taxation through a series of new levies;¹⁹³ in that “bargaining” process, most local powers were involved, including, or particularly, those of ecclesiastic orders and the Church.

¹⁹¹ All the medieval codes of law attempted to achieve such a centralization and forbid the counterfeiting and falsification of the official coins: from the seventh-century law of the Visigoths, which, for the territories of the early kings of France, Anglo-Saxon England, Lombardy, and the Visigothic kingdoms, established a strict regulation prohibiting the debasement and manipulation of the coin; to the Carolingian or Castilian regulations of money. “(V11.6.ii.) Whoever shall have debased, clipped, or shaved the coinage should be arrested as soon as he learns of it, and, if he be a serf, his right hand should be cut off. (V11.6.iii.) Whoever takes gold for ornaments, debases it, or corrupts it with an alloy of bronze or silver or other more common metal, let him be held as a thief.” Eruigius, “From the Laws of the Visigoths: On Coinage.”; “Because in many places false money is made, contrary to justice and against our edicts, we command that money be made in no other place than our palace, except we command otherwise. But those denarii which are now current shall be accepted if they are of proper weight and of good metal.” (*Capitulary of Diedenhofen Concerning False Money*, 805) in “Monetary Regulations of the Carolingians, 750-817.” ed Paul Halsall. (Place Published: Internet Medieval Source Book, 1998), <http://www.fordham.edu/halsall/source/750caroling-money.html> (29/12/2007)., available in the web in: <http://www.fordham.edu/halsall/source/750caroling-money.html> (29/12/2007); The *Utsages*, legal code compiled in Barcelona in 1150, granted the prince the right to coinage. MacKay, *La España De La Edad Media. De La Frontera Hasta El Imperio (1000-1500)*., p. 126. The *Fuero viejo de Castilla*, said to be promulgued in 1377 but probably composed earlier, and based on the Castilian traditional jurisprudence, set that the currency was one of the four things granted by nature to the king. See Anonimus, “Fuero Viejo De Castilla,” (1377), http://es.wikisource.org/wiki/Fuero_Viejo_de_Castilla (29/12/2007).

¹⁹² Wood, *Medieval Economic Thought*., pp. 90-92. See also emphasis in Cassiodorus, who Oresme would extensively use, about the need to respect weight and measures. Senator Cassiodorus, *The Variae of Magnus Aurelius Cassiodorus Senator ... : Being Documents of the Kingdom of the Ostrogoths in Italy ... / Uniform Title: Variae. English*, trans. S. J. B. Barnish (Liverpool: Liverpool University Press, 1992)., p. 14.

¹⁹³ Peter Spufford, *Money and Its Use in Medieval Europe* (Cambridge [Cambridgeshire]: Cambridge University Press, 1988)., p. 301.

That period of “bargaining” was also a period of developing and codification of Canon law, as well as of “rediscovery” and adaptation of Roman law. Canon law, or Christian Church jurisprudence, the equivalent of Islamic jurisprudence, if such a parallel may be drawn, was first codified by Gratianus, in the *Gratian Decretum*, and updated at the end of the 12th century by Alexander III and then Urbanos III.¹⁹⁴ This confluence led to or had an impact on both theoretical debates about the value of money as well as political arguments about the right to coinage. In political debates, the canon law would face Roman law to challenge the power of the prince or the emperor to coinage. On the other hand, theoretical debates about money within canon law and Christian scholasticism were inevitably influenced by the emphasis Roman law placed on the metallic character of money.

b. Sovereignty, coinage and control of weights and measures

Since Jesus Christ commanded men to: “Render therefore to Caesar the things that are Caesar’s; and to God, the things that are God’s,” (referring to the Roman denarius imprinted with Caesar’s head) it could be expected that currency, in the Christian world, would not receive the divine connotations it did in the Islamic context.¹⁹⁵ However, minting the symbol of the cross on the coin soothed moral concerns about using and dealing with money.¹⁹⁶ Moreover, in spite of Christian scholars and jurists not being part of state administration as such, as were Islamic scholars, clergymen in the late medieval period did participate, taking a position and joining in emerging debates about money, its value and property. Two main factors concurred for this involvement: the administration of ecclesiastic and monastic dominions and, related to it, the debates raised within religious orders concerning both poverty and usury in changes of money for money.

¹⁹⁴ Baeck, *The Mediterranean Tradition in Economic Thought*., p. 135. Gratian, author of the Decretum and so considered “founder of the science of (Christian) canon law,” was an Italian jurist that lived in Bologna in the first half of the 12th century. Influenced by both Roman law and scholastic philosophy (realism, Irnerio and Abelard), in the Gratian Decretum he compiled the laws of the church and the decretals of the popes down to 1139 known. In 1234, Gregory IX publishes the “second part” of the Canon law, the Decretals (“more independent of Roman law than the Decretum”). Alexander III adds his *Summa Magistri Rolandi*, part of a “gradual emancipation from the older law [Roman law].” The *Corpus Juris Canonici* was composed by (1) Gratian Decretum, about 1140-51 (1139, according to Sarton); (2) Liber extra or *Quinque libri decretalium* of Gregory IX (pope 1227-1241), compiled by Raymond of Peñafort and published in 1234; (3) Liber sextus decretalium, 1294; (4) Liber septimus, 1313-17. Later added a couple of texts. Sarton, *Introduction to the History of Science (3 Vols.)*. (1931), vol. II, part I, p. 268; part II, p. 528 and 687-88.

¹⁹⁵ St. Matthew’s Gospel, chapter 22:20-22, *Holy Bible* (New Testament), in *The Catholic Encyclopedia* online: <http://www.newadvent.org/bible/mat022.htm> (03/12/2007)

¹⁹⁶ Wood recounts a satire by John Bromyard (d. 1352) that reminds that: “This cross conquers, reigns, and it wipes away the guilt from everything;” and that the word cross became slang for coin, as later reflected in Shakespeare, Wood, *Medieval Economic Thought*., pp. 69-70.

We have already seen how most Latin scholars who commented on Aristotle's *Ethics* interpreted convention or *nomos* that in Aristotle defines money as the law. Monroe and later authors have argued that law meant statute law, whose source was the prince.¹⁹⁷ This general position matches Christ's statement mentioned earlier that renders the coin of the domain to the emperor. However, that the coin was a prerogative of the prince does not mean that he may have necessarily exercised an arbitrary power over it. In fact, the issue was treated differently depending on the equilibria of powers between the prince and the nobility, and between the prince or emperor and the Pope, and the position of each scholar, in their struggle for political power and property rights.

The Pope as *judex ordinarius* had the final and ultimate right of creating law.¹⁹⁸ While Roman law granted the right to coinage to the emperor, for the canonists this right belonged to the Pope, Emperor, and every *supremus princeps*, as only they could guarantee its uniformity as unit of measure.¹⁹⁹ The conflict between Roman and canon law, which reflected the ongoing clashes between the emperor's and Pope's sovereignty, involved as well disputes about who had the right to coinage and control of coins, which also revealed the position of the Church as landlord, directly affected by possible debasements of the coin.²⁰⁰ The Decree "Venerabilem" of Innocent III (c. 1161 – June 16, 1216) set the relationship between the Papacy and the Empire and gave the king the right to coin money with the king's own portrait.²⁰¹ The Papacy, however, continued its advocacy for a strong currency. Pope Innocent IV (1243-54), in his *Apparatus in quinque libros decretalium*, required currencies to be of

¹⁹⁷ Monroe, *Monetary Thought before Adam Smith.*, p. 19.

¹⁹⁸ "The pope was entitled and bound to lead the community of the faithful to its end; the means to do so was the law which, issued by the papal *conditor juris*, had immediate and universal validity and which concerned itself with everything that affected the vital interests and the structural fabric of the Christian community. What, however, answered this last criterion, which facts, circumstances, situations, actions, etc., touched the vital interests, only the pope 'who has all the laws in his breasts' could judge" last expression coined by Boniface VIII in VI.I.ii. but modeled according to the imperial decree of Honorius and Theodosius, in *Cod. Just.*, VI. xxiii. 19. Walter Ullmann, *Principles of Government and Politics in the Middle Ages* / Walter Ullmann (London: Methuen [etc.], 1961), p. 75.

¹⁹⁹ Monroe, *Monetary Thought before Adam Smith.*, p. 23.

²⁰⁰ While Roman law was spreading all around Europe from Bologna, Pope Honorius III prohibited the teaching of it at the University of Paris and priests to study it in 1219. Odofredus, Italian roman jurist from Bologna, states that the pope's authority was supreme in spiritual things and the emperor's in material ones. In the other side, Innocent IV, who convoked the Council of Lyon (1245) to excommunicated and deposed the emperor [Frederik II], who himself had published Frederick's Sicilian code in 1231, declared that "all power, temporal as well as spiritual, originates with the pope." Despite prohibitions and different pressures to oppose it (royal efforts in the English case) the teaching of Roman law continued. See the case of William of Drogheda (Irish, d. 1245) who taught in Oxford and published the *Summa Aurea*, a treatise on canon law that had lots of references on Roman law. Sarton, *Introduction to the History of Science* (3 Vols.). (1931), vol. II, part II, pp. 688-92.

²⁰¹ In Innocent III's *Privilegium*. Ullmann, *Principles of Government and Politics in the Middle Ages* / Walter Ullmann., p. 83; See also:

<http://www.newadvent.org/cathen/08013a.htm> (07/03/2007)

good material quality (*legitime pondus*) and opposed the practice of money fraud (*defraudata moneta*).²⁰²

c. The distinction between the intrinsic and the face value of money

The combination of Roman and canon law contributed highlighting the distinction between *bonitas intrinseca* and *valor impositus*, and thus between nominal and intrinsic value of money. The concept of *bonitas intrinseca*, as noted, derived from Roman law. The distinction between nominal and intrinsic value of money first appeared, according to Langholm, among Christian scholastics in the work of Henry of Ghent (d. 1293), in a *quodlibet* question about money-changing written between 1281 and 1282.²⁰³ Referring back to Plato, Henry of Ghent made the distinction in relation to the different spheres of circulation of money: money is exchanged in terms of its intrinsic value (market value) outside its area of circulation, while within this area it has a higher value (face value) due to the labour of putting it in circulation.²⁰⁴ Henry of Ghent's distinction seems to follow that made by Aquinas between metals (commodities), or coins that are outside their area of circulation, and coined money (currency), when the coin is inside its area of circulation. Following from this, the Aristotelian theory of the double measure applied to money allowed for further theoretical development around the establishment of its value.

Alexander of Alexandria (1268-1314), Franciscan theologian, clarifies that the nominal value of money, in contrast to its intrinsic (material) value, is the rate defined by law, this law being the positive law.²⁰⁵ Hence, the face value of money was perceived as a "legal decision"

²⁰² Baeck, *The Mediterranean Tradition in Economic Thought*., pp. 150 and 170. Baeck however gives no reference or quote of the text. The Pope dared even to reprimand the king of Aragon when the latter debased the coin, as Tolomeo di Lucca comments, reproving him for having altered the coin at the expense of its people. The Pope then ordered his son to re-establish the old law and rate. Thomas Aquinas, *El Gobierno Monárquico: O Sea El Libro De Regimine Principum Escrito Por Santo Tomás De Aquino*, trans. León Carbonero y Sol (Sevilla: D. A. Izquierdo, 1861)., Chapter 13, pp. 169-170. Probably he refers to Innocent VI.

²⁰³ *Quodlibet* question about money-changing (*campdoria*); *Quodl.* VI, 22 (1281/2): *Utrum commutatio campdoria sit licita*; Henry of Ghent, *Opera*, X; And later: "It follows, that if in itself it has substance in weight and form in so far as it is money it nevertheless has a currency which it possesses on account of its price, not its substance, so that by a small price in money the value of things in exchange are equalize." Henry of Ghent or *Doctor solemn*, *Quodl.* VI, 22; pp. 207-08; quoted in Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, pp. 254 and 267.

²⁰⁴ See Schreiber, quoted in Marjorie Grice-Hutchinson, *The School of Salamanca: Readings in Spanish Monetary Theory 1544-1605* (Oxford: The Clarendon Press, 1952)., p. 36. Henry of Ghent Quotes Ibn Sina's *Metaphysics*. Janssens, "Some Classics of Islamic Philosophy and Their Reception in the Western World"., p. 11.

²⁰⁵ Using Henry of Ghent's distinction between intrinsic and nominal value of money, Alexander declares that it is the later which positive law defines. "Money has a twofold recompense, one from the nature of the thing or its weight or measure, and another from the decision of positive law, for it frequently happens that some kind of money in some location is not worth as much as the value given to it by positive law." Alexander of

depending on the law of each place.²⁰⁶ Aegidius Lessinius, in his *Summa Artesana* (c. 1317), would expound a similar idea of the dual value of money, according to the “material of which it is made” (its intrinsic value) and to “positive law” (face value).²⁰⁷ How and under which circumstances this “legal decision” or “positive law” may change and how it related to the other aspect of the value of money, its intrinsic value, will be the source of disputes for the years to come.

Alessandria, *Tractatus de usuris*, VII, 143:183, quoted in Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 438.

²⁰⁶ Indeed, it is the difference between that nominal value from one place to the other and the intrinsic value of the coin, accprding to its weight and measure, what brings profit or not to the money-changer, “for it frequently happens that some kind of money in some location is not worth as much as the value given to it by positive law,” *Tractatus de usuris*, VII, 143:183, quoted in Ibid., p. 438. Changes in the nominal value of the coin justify indeed an indemnification when the coin in which certain amount of money is lent is devaluated “not due to the passage of time but to a legal decision,” *Tratatus de usuris*, VII, 147-8:186-6; commented in Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 444.

²⁰⁷ Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 302.

CHAPTER II. INDICTMENTS AGAINST THE PRACTICE OF DEBASEMENT IN THE LATE MEDIEVAL MEDITERRANEAN WORLD

In the previous chapter we saw that in the medieval period most authors took into consideration the metallic character of money. Inheritors of a common Aristotelian tradition, scholars in both the Islamic and Latin Mediterranean worlds interpreted the social convention that established money in Aristotle as being the law. Islamic thinkers understood this to be religious law, which through the schools of Islamic jurisprudence came to regulate monetary transactions and set fixed standards and rates of the monetary system. In the Latin world the law regulating money was considered to be the positive law, hence the domain of the prince and the community, with some qualifications and possible interpretations.

Disregarding those monetary regulations or agreements, debasement of money (in physical terms), as well as its devaluation or depreciation (in terms of the money of account or other currencies), was a resource political authorities turned to in order to cover fiscal deficits, war expenses or to avoid the flow of good coins out of the country. Those monetary manipulations raised some claims and critiques in both the Latin and Islamic parts of the Mediterranean among certain authors who challenged the legal basis of the monetary system and forced its refinement and development. In the next chapter I analyze and compare on which grounds and arguments those claims developed and what their impact was on the conception and management of money.

II.1. Debasement in contexts of monetized economies and expanding political units

The stability of the value of money that the law was supposed to grant and scholars demanded became a particular issue at stake for the stability of the whole society not only because money measured value in exchanges, both present and future, and so guaranteed the maintenance of commercial flows, as has been traditionally the case, but also because within a context of broader monetized activities it defined payments of taxes, rents and salaries, including those of the army, in broader sectors of the population.

While the Islamic world, and those regions connected with it had been quite monetized during most of the medieval period, the rest of Europe experienced a progressive expansion of monetary exchanges only in the late medieval period. Hence, while during that period, monetary instability emerged in the Islamic context with the break up of the empire and the

existence of competing political entities; in Latin Europe, the new monetary disturbances would become related to the increase of “money economies”, in the sense Postan gave to the term; an increase in the relative volume of money payments in a particular context, at different levels and degrees.¹ Miskimin explained how this process of “monetization” of an economy took place when “nobles shifted from military service to the king to money payments and peasants from labor services to money rents to pay their landlords.”² By the 13th century, while an increasing sector of the population started to have some contact with monetary transactions and others, such as textile workers, were remunerated with monetary wages, the rents and fees on which some groups within the centers of power depended, mainly the nobility and clergy, also came to be paid in coins.³ Even the monarchy was monetized and so required larger amounts of money to pay not only for war expenses but to maintain an army.

In those times of lack of liquidity, (a shortage of money in circulation either as a result of commercial or fiscal deficits or bullion famines, which we will examine in more detail in the next chapter), debasement became a common means of providing extra funds or activating idle mints, rising revenues for the monarchy and increasing the number of coins in circulation.⁴ Usually a “byproduct of war” as Spufford asserted, debasement was also frequently introduced to avoid the flow of “good” coins out of a city or region, which emerged as a common problem result of the concurrence of Gresham’s law when coins of different denomination and intrinsic value coexisted.⁵

¹ I am referring to the discussion of the use of the term “money economy” in Postan, “The Rise of a Money Economy.”: 123-34. See also the discussions of M. Bloch (“Économie nature ou économie argent,” *Annales d’histoire sociale* 1 (1939): 7-16) and H. Van Werveke (“Économie nature et économie argent,” *Annales d’histoire économique et sociale*, 4, (1931): 428-435) on monetary and natural economy. The existence of progressive monetization of the transactions in certain areas and moments does not exclude the resistance and return to practices of barter, payments of salaries in kind, or the use of other things as money, as pepper. See evidences compiled by Day, “The Great Bullion Famine of the Fifteenth Century.”, p. 4 (n. 6). For the end of practices of the barter economy and the *monetization* in rural areas in sixteenth-century France see works by B. Rivert, O. Zeller and Jacquart in André Tournon and Gabriel- A. Pérouse, *Or, Monnaie, Échange Dans La Culture De La Renaissance : Actes Du 9e Colloque International De L’association Renaissance, Humanisme, Réforme, Lyon 1991* (Saint-Etienne: Publication de l’Université de Saint-Etienne, 1994)..

² Miskimin, *The Economy of Early Renaissance in Europe, 1300-1460.*, pp. 8-10.

³ As Spufford illustrated rent in money, although already common in some parts of Europe by the end of the 12th century, basically substituted king and labour-rents as the 13th century proceeded. Spufford, *Money and Its Use in Medieval Europe.*, p. 243.

⁴ Day, “The Great Bullion Famine of the Fifteenth Century.”, p. 14.

⁵ Spufford, *Money and Its Use in Medieval Europe.*, p. 289. In spite of the critique about the real impact or “enforcement” of Gresham’s law nowadays, see Miskimin (1972) and Rolnick & Weber (1986), Munro defended that the economic relation proved to be much valid for medieval and early modern Europe. John H. Munro, “The Monetary Origins of the ‘Price Revolution’: South German Silver Mining, Merchant Banking, and Venetian Commerce, 1470-1540,” in *Global Connections and Monetary History, 1470-1800*, ed. Dennis O. Flynn, Arturo Giráldez, and Richard Von Glahn (Aldershot: Ashgate, 2003)., p. 480. It indeed proved also its

Debasement entailed a conscious reduction by the minting or monetary authorities of the amount of precious metal a given coin contained; usually a coin made out of an alloy of silver and copper or other materials, whose silver content was decreased, hence diminishing its quality and intrinsic value. The new debased coin left the mint and entered into circulation with the same denomination, face or nominal value, as the former one with the higher alloy. Markets and economic agents needed some time to recognize the fall in the intrinsic value of the coin. In that gap authorities gained extra revenues in two ways: first, through the difference between the face value and the actual intrinsic value of the new coin (whoever minted coins with a face value higher than its intrinsic value gained a profit from that difference); and second, via the seigniorage, or minting tax, since debasement or devaluation reactivated minting, by making it profitable, and, thus, increased seigniorage revenues. Since the intrinsic value of the minted coin was lower than its face value it was advantageous to mint bullion or old coins into new ones. In this way, debasement enhanced the minting of metal that was in bullion or had been hoarded, and the reminting of former coins of higher alloy.⁶

Thus, in contrast to the period of bargains and alliances between king and community that from the 11th century had led to princes giving up their right to change coinage at regular intervals in exchange for extended rights of taxation, as Spufford explained, by the end of the 13th century the new economic and political context made debasing a coin quite a common resource for princes in some regions of Latin Europe, depending on the bargaining power of the nobility and clergy versus the monarch in each period, who rose up against it.⁷

MacKay analyzed the effects of a frontier situation on the constitutional development of Christian kingdoms on the Iberian Peninsula, which, concerning money, as is reflected in the *Cortes*, had certain power to limit the monarch's rights to coinage, and hence control

concurrence in the competence between the ducat and the dinar during the Mamlūk period (15th century). The law particularly goes for hard economies, while the monetary system was based on metal money. See Jere L. Bacharach, "The Dinar Versus the Ducat," *International Journal of Middle East Studies* 4, no. 1 (1973).

⁶ These mechanisms are well explained in Carlo M. Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria* (Crítica: Barcelona, 1994)..

⁷ For the bargaining period see: Spufford, *Money and Its Use in Medieval Europe*., p. 301; For recounts on the series of debasements in different regions see: Miskimin, *The Economy of Early Renaissance in Europe, 1300-1460*.; Harry A. Miskimin, *Cash, Credit and Crisis in Europe, 1300-1600* (London: Variorum Reprints, 1989).; Harry A. Miskimin, *Money, Prices and Foreign Exchanges in Fourteenth-Century France* (New Haven: 1963).; As he did for medieval times, Spufford did as well for 15th century Burgundian Netherlands, see: Peter Spufford, *Monetary Policies and Problems in the Burgundian Netherlands, 1433-1496* (Leiden: 1970)..

debasement.⁸ However those agreements ended from the mid-13th century on due to financial pressures that forced the Castilian monarch to debase the coin.

The “bargaining” trend changed in the rest of Europe as well from the 1290s, particularly in France, where Philippe Le Bel (Philip IV, 1285-1314), resorted to successive debasements, initially to finance his war in England and Flanders.⁹ However, revolts and declarations by clerics and the nobility followed, which finally forced the king to seek advice and consultation of those estates. By then, the ‘good money of St. Louis,’ his predecessor, was accepted as a reference to return to.¹⁰ Similar events occurred in England, Brabant and Aragon, and similar reactions from the clergy and the nobility followed.¹¹ In 1307, the king of Aragon, James II, was allowed to alter the currency but only after a session of the *Cortes* and after promising that he would from then on maintain the standard of the new money, in weight and alloy.¹² Those types of consultation in monetary matters were held in France during the first third of the 14th century.¹³

The financial burden created by the Hundred Years War however broke up the consensus achieved and gave place to extensive debasements, with no consultation of any kind. These debasements included seven downward changes in the quality of coinage in France from 1336 to 1342, plus new debasements in 1343, 1346, 1349 and 1355.¹⁴ In Castile, a similar sequence of debasements, initiated in 1354 to finance Pedro el Cruel’s fight against his nobility, and followed by later debasements to finance wars with neighbouring kingdoms, led to severe falls in the value of the *maravedí*.¹⁵ Consequent protests and pressures from the nobility following these debasements ended in temporal alliances for strong-money policies.

⁸ First debasements or monetary manipulations in the Iberian Peninsula had taken place around the s. XII due to the economic difficulties to finance the reconquista. However, already by 1202, the *Cortes de Benavente* bought Alfonso IX of Leon’s right to recoinage money. MacKay, *La España De La Edad Media. De La Frontera Hasta El Imperio (1000-1500)*., pp. 55-56, 116.

⁹ Spufford, *Money and Its Use in Medieval Europe*., pp. 301-303.

¹⁰ *Ibid.*, p. 303.

¹¹ In England, under the expectation of possible debasements, the high nobility resorted to the Ordinances of 1311 to appeal Edward II to consult the “Barnage” and *parliamente* before debasing the coin. In 1314, in Brabant, towns and nobility addressed the duke, John III, in similar terms. *Ibid.*, p. 304.

¹² *Ibid.*, p. 304.

¹³ In the General assemblies of the Langue d’Oil, in 1320, 1321, 1329 and 1333, the king obtained the advice of the three states on problems of coinage. *Ibid.*, p. 304.

¹⁴ Less severe debasements in Flanders with Louis de Male at the middle of the century. See works by Hans van Werveke cited in *Ibid.*, pp. 305-07.

¹⁵ As Spufford recounts, in 1500 the *maravedí* retained only a sixty-fifth of its value in 1300 against the Florentine florin (quite stable during the period). *Ibid.*, p. 293.

This whole period of debasements resulted as well in more direct and developed critiques on the part of scholars, as we will see in next section.¹⁶

In the Islamic world, during the first two centuries, while the Islamic Empire was able to keep control of the western and eastern gold- and silver-producing areas, the dinar quality and weight maintained some stability both in the east and west.¹⁷ The loss of the western provinces and the political confusion of the late Abbaside Caliphate during the Buyid dynasty, put the gold-producing area out of reach and generated a monetary crisis that made it impossible to keep the former bi-metallic system stable.¹⁸ The dinar experienced many irregularities in weight after the 10th century. Later periods of debasement during the Fatimid and Ayyubid periods may be traced in the works of Ehrenkreutz and Goitein, and during the Mamlūk dynasties, in those of Ashtor and Bacharach.¹⁹ Those debasements also raised extensive complaints from jurists, religious scholars and public officials.

II.2. Positions on and indictments of the debasement of currency

Debasement of money represented a kind of expansionary monetary policy. It broadened the monetary base or amount of money in the economic system and, in context of a monetized economy, usually led to price increases. It was different than the devaluation of money, which was a decrease of its value in terms of the money of account or money of reference, but both motivations and effects were the same.

In contexts of quite monetized economies such as those of parts of the Islamic world or in some parts of Europe during the 13 and 14th centuries where economic transactions and rents were progressively monetized, debasing money meant important losses for all whose

¹⁶ Spufford speaks of four waves of debasements to cover the costs of both foreign and civil wars, in 1354, 1386, 1429 and 1463; followed up by consequent protests and pressures from the nobility (in 1371, 1391, 1441-42, and 1471-73). Ibid., pp. 314-15. The later return to a stronger coin affected other groups of the society, in 1391 and 1473, as recounted in Agnus MacKay, "Popular Movements & Progroms in Xvth Century," *Past & Present*, no. 55 (1972).

¹⁷ G. C. Miles (1950) quoted by Cipolla, *Money, Prices, and Civilization in the Mediterranean World, Fifth to Seventeenth Century*., p. 23.

¹⁸ It led to the monetary crisis of the tenth century, where supply routes were disrupted and violent fluctuations characterized prices, gold-silver rates and standards of purity. Roy P. Mottahedeh, *Loyalty and Leadership in an Early Islamic Society* (London: I.B. Tauris, 2001)., p. 36.

¹⁹ Ehrenkreutz, "Money, *Handbuch Der Orientalistic. Erste Abteilung (...)*. Leiden: E.J. Brill, 1977."; S. D. Goitein, "The Exchange-Rate of Gold and Silver in Fâtimid and Ayyûbid Times: A Preliminary Study of the Geniza Material," *Journal of the Economic and Social History of the Orient* 8 (1965).; for a history of coins and monetary changes in Mamluk Egypt see Paul Balog, "History of the Dirham in Egypt from the Fatimid Conquest until the Collapse of the Mamlūk Empire, 358/969-922/1517," *Revue Numismatique* 6 serie, no. 3 (1961). and Paul Balog, *Coinage of the Mamlūk Sultans of Egypt and Syria* (New York: 1964)..

rents or incomes were fixed, in the money of account, the so-called “monetary rents,” both as a result of the decrease in the (intrinsic) value of the coin and the increase in prices.²⁰

While economic sectors and social groups were progressively monetized, writings of scholars and jurists reflect a certain alertness about the need to keep stable the value of coins and, later, a certain awareness about the possibility of money being debased and the need to control it. In the next two sections we will examine some of the main works that appeared criticizing the use of these practices, and pay attention to when they appeared both in the Islamic and the Christian worlds, in order to see any similarities and differences between the conceptions and arguments presented in them.

II.2.1. *Writings and critiques against debasement in the Islamic world*

“The power of speech is intended to set forth the expedient and inexpedient, and therefore likewise the just and the unjust. And it is a characteristic of man that he alone has any sense of good and evil of just and unjust.” – Aristotle, Politics²¹

To command the good and forbid the wrong, *al-’amr bi’l ma’rūf wa-n-nahī ‘an al-munkar*, a phrase that epitomized the concept of *ḥisbah*, developed into an institution, the one in charge of urban organization and market control, but also represented a more general moral precept in the Islamic world.²² The actual sphere of application for this principle, whether it involved any Muslim or was only the right or duty of those with the capacity to distinguish between good and evil, was subject to different interpretations. While al-Ghazālī extended the duty of ordering the good and forbidding the bad, to every Muslim, Ibn Taimīyah restricted it to those “learned” ones.²³ Whether a monopoly of the elite or of the masses, this principle (combined with “earlier Sunnite constitutional” political theories, like those shown by Mawārdī, that held that the ruler could be disobeyed if he did not fulfil the Islamic ideals or deviated from the law)

²⁰ Fact raised by Miskimin, Miskimin, *The Economy of Early Renaissance in Europe, 1300-1460.*, pp. 8-10.

²¹ Aristotle, *Politics.*, pp. 5-6. Available in the web:

<http://socserv2.socsci.mcmaster.ca/~econ/ugcm/3ll3/aristotle/Politics.pdf>, (06/10/2007)

²² See Cook, *Commanding Right and Forbidding Wrong in Islamic Thought*.

²³ Al-Ghazālī offers some evidence on this in the *Qur’an* and the *sunnah*: “The Prophète – que la bénédiction et le salut de Dieu soient sur lui – a dit: « *La recherche du licite est une obligation pour tout musulman.* »” al-Ghazali, *Le Livre Du Licite Et De L’illicite (Kitab Al-Halâl Wa-L Harâm)*, p. 7. Also in the second volume of the *Iḥyā’*, nineteenth chapter, he says: “*les versets coraniques et les traditions que nous avons cités montrent que quiconque voit une chose blâmable et se tait, comment un péché puisque c’est pour lui une obligation de l’interdire partout où il la voit et de quelque façon qu’il la voit. Cette obligation a un caractère general. La particulariser en exigeant le mandat de l’Imâm, c’est user d’arbitraire injustifié.*” Al-Ghazali, *L’obligation D’ordonner Le Bien Et D’interdire Le Mal (Livre Xix, Vol. Ii De L’ihyâ’ ‘Ulûm Al-Dîn)*, p. 19.

set the grounds for contestation.²⁴ Indeed, it was in relation to the institution of *ḥisbah* that some authors raised their voices against the debasement of money.

As mentioned, among the functions of the institution of *ḥisbah*, and of the *muḥtasib*, was the control of weights and measures, including those of coins exchanged in markets. It was, nevertheless, mainly a mechanism of control for economic agents and merchants in the market, not for the authorities, although numerous mentions against abuses and monopolies also refer to the intervention of public officials and institutions in economic activities.²⁵ Most of the references to money in the treatises of *ḥisbah* referred to the particular rates of exchange between currencies in circulation at that moment. Certain indictments appeared against cheating with those changes or committing usury, but the emphasis was on avoiding fraud in the markets, not on preventing the authorities from changing the value of coins. It is in this light that Ibn Khaldūn's explanation of the function of the House of Money, whose charge is to watch over the authenticity of coins to prevent their debasement and deterioration, should be viewed.²⁶ The House of Money was an instrument to control monopoly of coinage and respect for canonical rates in the monetary system; however, in the hands of corrupt public officials or factions within the state administration, it was also an instrument for profit and thus the cause of internal fights within the administration, as reflected in the works of jurists and historians of the Mamlūk period.

Indeed, some of those jurists who worked as *muḥtasib* or wrote about the institution of *ḥisbah*, were the ones to raise indictments against the manipulation of the currency and its debasement. In this respect, I will examine next the works of a series of Islamic scholars who spoke about monetary manipulations and thus evaluate the kinds of concepts discussed in relation to the manipulation of the value of money.

a. Al-Ghazālī and Ibn al-Ukhūwah: accommodating positions towards money

Ghazanfar, Islahi and Essid held that al-Ghazālī (1058-1111) opposed the debasement of money on the grounds that he condemned the use of counterfeit coins, equating that to stealing.²⁷ He, indeed, condemned the counterfeiting of coins in several sections of the

²⁴ Bagley's introduction to: al-Ghazali, *Ghazālī's Book of Counsel for Kings (Nas:Īh:At Al-Mulūk)*., p. xlv.

²⁵ The main focus of most of *ḥisba* treatises is in the practical issues of daily exchanges in markets. Those patterns are particularly exemplified by the treatises by ash-Shayzarī, Ibn Bassām and Ibn al-Ukhūwah, from which the second is basically a copy of the first; the third has also some chapters in common.

²⁶ See note above.

²⁷ Essid, "Islamic Economic Thought.": 77-102, p.88. Also Ghazanfar, *Medieval Islamic Economic Thought: Filling the "Great Gap" in European Economics.*, p. 35; and Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis (11-905 A. H./632-1500 A. D.)*., p. 49.

Ihyā'.²⁸ Al-Ghazālī argues that if a man or merchant knows he is using a counterfeit coin he should not only inform others about it but also stop using it.²⁹ It is part of his general indictment of frauds and trickery, which is a recurrent theme in both Islamic and Christian scholasticism.³⁰ However, in my opinion this is not a critique of the authorities for debasing money. Al-Ghazālī makes no reference to the authorities in this respect. Those acts of counterfeiting, which are prosecuted, belong to the individual sphere, to the merchant or the economic agent using counterfeit coins in their exchanges.³¹

Al-Ghazālī clarifies that a counterfeit coin is one that has “nothing of gold or silver.”³² So, it seems that he is referring to the use of copper coins, prohibited by the Shāfi‘ī school of jurisprudence, to which al-Ghazālī belonged. The circulation of those copper coins could be a result of the debasement of silver coins, but still no reference to the authorities is evident. Additionally, a surprising outcome of the text is that for al-Ghazālī, the use of unofficial (or not current) coins is a form of cheating, while a coin of any alloy of gold or silver, whether or not it follows canonic standards, is acceptable if dominant or official.³³ As Islahi also recognizes, for al-Ghazālī “coins of mixed metals are acceptable if the issuer is the state.”³⁴ Hence, debasement on the part of authorities is not questioned. The only problem with counterfeited coins derives from the fraud entailed in the fact that they are traded as coins

²⁸ “It is an oppression on the public to use counterfeit coins. The first man who uses such coin will get the sins of every person who subsequently transfers it to other persons. This is like introducing a bad custom. A certain sage said: To transfer a counterfeit coin to another is worse than the theft of a hundred coins, as theft is confined to a sin, while the circulation of a counterfeit coin is not limited and it continues years after years unless they are destroyed.” The statement appears in the second part of the *Ihyā'*, the one dedicated to “wordly affairs,” in the third chapter of that part (thirteenth of the volume of the *Ihyā'*), on the different ways of earning a living and including a section to counterfeit coins. Al-Ghazali, *Imam Gazzali's Ihya Ulum-Id-Din.*, vol. II, pp. 63-64. There is another mention as well on the illicitity of using counterfeit coins in vol. IV: “The use of counterfeit coins is not lawful as an owner of good coins will not be ready to receive counterfeit coins, even though the number of the latter is greater.” Al-Ghazali, *Imam Gazzali's Ihya Ulum-Id-Din.*, vol. IV, p. 97.

²⁹ Al-Ghazālī even affirms that the one who receives the false coins and destroys them will have the blessing of the Prophet. Al-Ghazali, *Imam Gazzali's Ihya Ulum-Id-Din.*, vol. II, p. 63.

³⁰ Al-Ghazālī mentions before that deceit and fraud can generate two kinds of losses, to the general public or to special persons. Ibid., vol. II, p. 61.

³¹ Islahi recognized that al-Ghazālī is speaking only at the individual level but then says that it could be apply to the government, which I think cannot be justify based on any other statement from the author. Abdul Azim Islahi, “Economic Concepts of Ibn Taimiyah,” (Leicester: The Islamic Foundation, 1988), p. 240. In his volume of 2004, Islahi reiterates this argument quoting another section of the *Ihya*: “It is a great injustice to place counterfeited money in circulation” (*Ihya*, vol. 2, p. 73). Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis (11-905 A. H./632-1500 A. D.)*, p. 49.

³² And then “the coin in which there is something of gold and silver cannot be called counterfeit.” Al-Ghazali, *Imam Gazzali's Ihya Ulum-Id-Din.*, vol. II, p. 64.

³³ “If a coin contains some silver but it is mixed with copper and that is the authorized coin in the country, this is acceptable whether silver content is known or not. But, if it is not authorized, then it will be acceptable only if silver content is known.” Quoted in Ghazanfar, *Medieval Islamic Economic Thought: Filling the “Great Gap” in European Economics*, pp. 35-36; which correspondance in al-Ghazālī’s text I did not find.

³⁴ *Ihya*, vol. 2, p. 73-74; quoted in Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis (11-905 A. H./632-1500 A. D.)*, p. 49.

with a certain amount of gold and silver while, either they contain no precious metal at all, or they are not official or accepted coins for circulation in that place.³⁵

Therefore, al-Ghazālī's position favours a political definition of the monetary system, detached from the monetary standards defined by Islamic jurisprudence, although modelled following them. Not only does Al-Ghazālī not condemn debasement, as some authors have argued, but indeed he accepts any coin if, first, it contains any gold and silver, and, second, it is taken as the official coin in circulation at a given time and place.³⁶ It is the identical line of argument that Ibn al-Ukhūwah will follow almost two centuries later, and denotes indeed nothing but a quite pragmatic stand.

Like al-Ghazālī, Ibn al-Ukhūwah (Egypt, 1250/51-1329) was also *Shāfi'ī*, the school of Islamic jurisprudence dominant in the Near East at that time.³⁷ In his treatise on *ḥisbah*, *Ma'ālim al-Qurbah fī Ahkām al-Ḥisbah*, Ibn al-Ukhūwah includes the circulation or use of false coins among those practices forbidden in commercial transactions.³⁸ Following also the

³⁵ "It is an act of oppression if a merchant is caused loss" (...) "To say that a thing possesses a quality which it has not got is falsehood." Al-Ghazali, *Imam Gazzali's Ihya Ulum-Id-Din.*, vol. II, p. 64. There is another part that reflects that al-Ghazālī accepts that counterfeit coins are circulating and may be exchanged. The fraud appears when either are taken for good coins or exchanged for good coins. The exchange of bad and good coins is not possible because their relation is not clear or well defined, it is a pattern that appears in Islamic jurisprudence and can be seen in Ibn Rushd' manual: "Counterfeit coins in a great measure can not be taken in lieu of less quantity of pure coins. This kind of transaction is unlawful. An inferior quality of a thing cannot be taken in lieu of a good quantity of the same thing." Al-Ghazali, *Imam Gazzali's Ihya Ulum-Id-Din.*, vol. II, pp. 58-59.

³⁶ It matches indeed his political attitude, since although, as we saw, al-Ghazālī defended the right of any Muslim to stand for the good and denounce the wrong, he was not ease with the idea of rebellion or the dangers civil war brought, which he considered as the highest evil for the public interest, but, on the other hand, called for speaking out and not accepting at least, if not fighting, the corruption of elites and authorities. al-Ghazali, *Le Livre Du Licite Et De L'illicite (Kitab Al-Halâl Wa-L Harâm)*, pp. 175-76. There are, nevertheless, some very contesting passages as: "*Les biens des Princes à notre époque sont totalement ou en grande partie illicites*" (p. 170) ; "*Le Prince injuste devrait être relevé de ses fonctions. De gré ou de force*" (p. 175); or "*En bref, le peuple est corrompu parce que les Princes le sont. Et les Princes sont corrompus parce que les savants le sont. Si le nombre de cadis et de savants corrompus était moindre, les Princes par crainte d'être exécrés le seraient moins aussi. C'est pour cette raison que le Prophète - que le salut et les prières de Dieu soient sur lui - a dit: "Cette maison demeurera sous la protection de Dieu tant que les lecteurs de Coran ne soutiendront pas les Princes"* (p. 207-08) ; which led a more "rebellious" reading of al-Ghazālī by the Almoravids. In fact, during the Almoravid uprising the Almohads ordered to burn some of al-Ghazālī's books. He does not depart so much, in spite of Bagley's opinion, to Mawārdī, who considered that the ruler assumed a contractual obligation with the Muslim population and that if they did not fulfil the Islamic ideals or follow the Islamic law could be disobeyed. al-Ghazali, *Ghazālī's Book of Counsel for Kings (Nas:Îh:At Al-Mulûk)*, p. xlv.

³⁷ Ibn al-Ukhūwah, Muḥammad bin Muḥammad bin Aḥmad al-Qurashī al-Shāfi'ī (Egypt, 1250/51-1329). According to Levy, the only account of the author appears in the *Durar al-Kāmina* by Ibn Ḥajar al-'Asqalānī (Hyderabad Deccan, 1348-50), where it is said he died in 2 Rajab 729/1329. It seems that he was Egyptian (Levy, 1938, pp. xvi-xvii); Sarton, *Introduction to the History of Science (3 Vols.)*. (1947), vol. III, part I, p. 998.

³⁸ Levy translated: "All forms of usury, debasement of coinage and other corrupt practices are forbidden" Ibn al-Ukhūwah, *The Ma'alim Al Qurba Fi Ahkam Al-Hisba of Diya' Al-Din Muhammad Ibn Muhammad Al-Qurashi Al-Shafi'i Known as Ibn as-Ukhūwa.*, p. 18. However, the Arabic part goes: "*yajibu al-ankāra (...) wa kadhā fī al-ribawīah kulluhā wa hiā ghālibah*" which may be translated as "it is necessary to forbid (thus) all the usurious (transactions) and they are predominant." The reference to debasement could only appear if we consider the term

regulations set by Islamic jurisprudence, in the section on usury, Ibn al-Ukhūwah declares that coins in which the amount of gold is unknown cannot be used unless the coin “is current in the place and no equivalent coin is available.”³⁹ However, a clearer reference to debased coins appears when Ibn al-Ukhūwah insists that transactions with “debased dirhams with copper” (*ad-dirāhim al-maghshūshah bil-nuḥās*) are not allowed if those coins are not current or circulating (*rā’ijah*) in the country.⁴⁰ Hence, either coins of unknown alloy or debased coins are allowed if (officially) current or circulating.

The explanation of his position towards “debasement” appears then in a section where Ibn al-Ukhūwah quotes repeatedly al-Ghazālī, so it helps to clarify the latter’s position as well.⁴¹ As al-Ghazālī before, Ibn al-Ukhūwah equates the use of false money with sinning and emphasizes the greater “wrong” moneychangers generate in allowing false coins to circulate.⁴² Ibn al-Ukhūwah quotes even the same saying from the Prophet as al-Ghazālī, to illustrate that the use of a false coin is worse than robbery because it multiplies the initial damage over time, progressively diminishing people’s wealth.⁴³

ghālibah to be *zaghghāliyah*, debased or adulterated, being misspelled in the mss. of the British Museum, according to Levy’s notes, where it appears as *ra’āliyah* (the two dots of the first two consonants missing and then *r* and ‘ instead of *z* and *gh*). In any case, I find no reference to money in this particular section of the sixth chapter. Ibn al-Ukhūwah, *Ma’Alim Al-Qurbah Fi Ahkam Al-Hisbah.*, p. 52 (Arabic text).

³⁹ Ibn al-Ukhūwah, *The Ma’alim Al-Qurba Fi Ahkam Al-Hisba of Diya’ Al-Din Muhammad Ibn Muhammad Al-Qurashi Al-Shafi’i Known as Ibn al-Ukhūwah.*, p. 22. In the Arabic text edited by Levy that “current” coin is the translation of “*naqdān jāriyān*”, current, present, circulating or flowing coin. In some manuscripts, however, Levy noted that in the manuscripts of the British Museum and the Bodleian Library it was written as “*naqdān jāyẓān*,” which could be a misspelling of “*jā’izān*”, lawful, legal or permitted. Ibn al-Ukhūwah, *Ma’Alim Al-Qurbah Fi Ahkam Al-Hisbah.*, (p. 68, n. 15, in the Arabic text).

⁴⁰ This is not in the parts that Levy translated: “*wa kadhā ad-dirāhim al-maghshūshah bil-nuḥās an in lam takunna rā’ijah fīl-balad lam taṣuḥḥ al-mu’āmalah ‘alayhā.*” Ibn al-Ukhūwah, *Ma’Alim Al-Qurbah Fi Ahkam Al-Hisbah.*, p. 69 of the Arabic text. Ibn al-Ukhūwah continues then with the traditional principles that regulate the exchange of metals.

⁴¹ As Levy also points out, Ibn al-Ukhūwah follows closely al-Ghazālī in the whole 6th chapter. Ibid., p. 18.

⁴² This part starts: “*Tarwīj aṣ-ṣayārifa ad-dirāhim al-muzayyafa ‘alā an-nāsi ḡulmun yastadḡirru bihi al-mu’āmalūna idhā lam ya’rafū naqd al-baladi fa’alā al-muḡtasibi ‘an ya’amuruhum biqaṣṣihā wa taghyīrihā ‘an hai’atihā wa ‘an lā yaghshshū an-nāsa bihā biḡaiṡu lā yumkinu at-ta’āmalu bihā. Ath-thānī annahu yajibu ‘ala at-tājiri ta’allama an-naqda lā liyastaqīṣa [?] linafsihi wa lakina li’illā yusallimu ilā muslimi zā’ifān wa hūa lā yadrā fayakūnu āthimān*” Ibid., p. 70, of the Arabic part. The translation could be more or less the following: “The money-changers’ spread of false, spurious or counterfeit dirhams among people harms or does wrong, damaging those that trade with them if they do not know the coin of the country; therefore it is in the inspector of the market to order them to cut it [the false coin] and change its aspect, and not cheating people with it [the false coin] providing that it is not possible to trade with them. Secondly, it is in the merchant[’s responsibility] to know the coin, not only for himself but also in order not to deliver a counterfeit coin to a Muslim that is not aware of it, since that is a sin.” Apart of other little nuances, Levy’s translation omits the phrase that says that the “damage” is made to those people trading with the spurious coins “if they do not know the coin of the country.” This phrase, which fits with the mention to the merchant’s need of being “acquainted” with the coinage, also corroborates the mentioned position of the author towards legal money.

⁴³ “*wa qāla [the Prophet] ba’ḡhum infāqu dirhaman zā’fin ashshaddu min sariqati mi’atin dirhamin lianna as-sariqatu ma’ṣiyatun wāḡidatun wa qad tammāt wa inqāṡa’at wa infāqu az-zā’ifa bid’atun taḡharu fī ad-dīn wa sunnatu saiyati yu’malu bihā ba’dahu fayakūnu wizrahu ba’da mautihu ilā mi’atin sanatīn au ilā mi’ata sanatīn*

Hence, we may conclude that the concept of “false” or “counterfeit” coins is clearer in Ibn al-Ukhūwah than in al-Ghazālī. Ibn al-Ukhūwah uses the following terms: *al-dirāhim al-muzayyafah*, false, counterfeit or spurious dirhams; and then *dirham zā’if*, false, forged, counterfeit or spurious;⁴⁴ explaining that the latter is a coin with almost no content of value (or no intrinsic value, which Levy translates as with almost no silver content), a result of an adulteration made out of copper.⁴⁵

Therefore Ibn al-Ukhūwah is referring to the issue of black money, copper coins or *fulūs*, which, after disappearing during the Fatimid period, had been reintroduced in Egypt by the Ayyūbids (564-648/1169-1250).⁴⁶ The use of copper coins expanded in Egypt during the 14th century as a result of the shortage of silver and the need for small change; an issue that other authors of the period denounced, as we will see, and that raised concerns among those branches of Islamic jurisprudence that were more strict concerning the use of gold and silver only, and not copper, as currency or legal tender. Within the debate among the ‘*ulamā*’ about the legality of the use of those less significant, basically copper, coins Ibn al-Ukhūwah takes the side of those who legitimated it if those coins are considered as the “coin of the country” (*naqd al-balad*), disregarding whether or not its intrinsic content is known. He adds that if they are not the “coin of the country,” then it is necessary to know the coefficient of its value, the exchange rate. Only if that proportion is lower than the one of the coins in circulation

ilā an yafnā dhālika ad-dirhamu wa yakūnu ‘alayhu wizra mā fasada wa naqasa min amwālī an-nāsi bidhālika az-zā’ifi.” Ibid., p. 71 of the Arabic text. This part could be translated: “and, as the Prophet said to some, the use or expenditure of a false dirham is worse than the stealing of 100 dirhams, because stealing is a single sin or infraction that comes to an end and is isolated (disconnected from others), while the spending of a false coin is an innovation (heresy) that is evident in religion, (as can be seen in) the sunnat sa’yāt (that) deals on it, since after its own end (once the action of using the false dirham is finished) it becomes a sin over 100 or 200 years till the extinction of that dirham, and it is in that false (coin) the sin that deteriorates (corrupts) and decreases people’s wealth.”

⁴⁴ Ibid., pp. 70-71 of the Arabic text.

⁴⁵ “*ar-rābi’a anna az-zā’ifu na’nā bihi mā lā naqrah fihi aṣlān bal hūa mumawwahu fāin kāna makhluṭān bi-an-nuḥās wa hūa naqdu al-balād fa qad ikhtalafa al ‘ulamā’ fi al-mu’āmilah bihi*” Ibid., p. 71 of the Arabic text. This may be translated as: “In the forth place, we mean with false (or spurious coin) what has no value (or mark of authenticity) on it but it is mixed or coasted (with silver and gold), and in being an alloy of copper and the coin of the country there had been divergences among the ‘*ulamā*’ on whether it is licit or not to deal with it.” Levy translates *naqrah* as silver, but I think it is simply “engraving” or mark, or simply value. His translation goes: “By spurious coin is meant that which contains no silver but is merely dipped [in gold or silver]. If it is alloyed with copper and is the current coin in a city, it is disputed whether transactions with it are valid.” Ibn al-Ukhūwah, *The Ma’alim Al Qurba Fi Ahkam Al-Hisba of Diya’ Al-Din Muhammad Ibn Muhammad Al-Qurashi Al-Shafi’i Known as Ibn as-Ukhūwwa.*, p. 23.

⁴⁶ 34% of Ayyūbid coins were copper according to Jeanette Wakin’s survey. Bacharach, 1976, p. 33. In most parts of the Islamic world, the copper coin, fals, plural *fulūs*, had disappeared from circulation by the 10th century. See literature quoted in Alberto García Cano and Eduardo Marsal Moyano, “Hallazgo De Moneda Emiral De Iznájar (Granada),” *Al-Qanṭara* IX, no. 2 (1988), p. 444.

(“the coin of the country”), to put them in circulation, without making this rate public, is a fraud and leads to immorality or corruption.⁴⁷

Thus, as in al-Ghazālī, but more explicitly, in Ibn al-Ukhūwah the “false” coins are basically the low-value copper coins when those coins are not recognized as “current” in the place circulated, or when their alloy and composition is unknown or not explicit. About the impact of the introduction of debased or low-value coins, Ibn al-Ukhūwah assesses that the use of these coins deteriorates the wealth of people, but there is no further explanation or mention about how this process takes place.⁴⁸

For Ibn al-Ukhūwah, the inspector of the markets must be responsible for controlling circulation, as well as exchanges rates and measures, of the “Islamic dirhams”, and the traditional monetary standards concerning gold and silver coins.⁴⁹ Ibn al-Ukhūwah does not give any opinion other than to respect what is officially defined as legal tender. Therefore, as al-Ghazālī before, he is simply denouncing the use of debased or counterfeited coins, in respect to those official coins, by money-changers or any agent trading in the markets.

b. Miskawayh and aṭ-Ṭūsī: money as an instrument of justice administration; the debaser of money as a tyrant

In *The Nasirean Ethics*, Naṣīr ad-Dīn aṭ-Ṭūsī (1201-1274) portrays a more critical or extreme stand against manipulation of the value of money.⁵⁰ He explains how the types of

⁴⁷ (continuing with the previous section) “*wa qad ra’ynā ar-rukhsah fīhi idhā kāna dhālika naqd al-baladi sawā’ ‘ulima miqdāru an-naqirihi aw lam yu’lam wa in lam yakun naqda al-balad lam yajuz illā idhā ‘ulima qadru an-naqrati [maybe an-naqirihi as before, or the contrary] fāin kāna fī mālahi qīṭ’at naqratiḥā nāqīṣah ‘an naqdi al-baladi fa ‘alayhi an yakhburi bihi mu’āmilahu wa ‘allā yu’āmilu bihi min yastahlli at-tarwīji fī jumlati an-naqd biṭariqi at-talbīs fa ‘ammā min yastahlli dhālika fatastālimiḥi ilayhi taslīṭi ‘ala al-fasādi.*” Ibn al Ukhūwah, *Ma’Alim Al-Qurbah Fi Ahkam Al-Hisbah.*, p. 71 of the Arabic text. This part may be translated as: “and has been our opinion that is permissible if it is the coin of the country, whether it is intrinsic value is known or unknown, although if it is not the coin of the country it is not acceptable unless the rate of its engraving (or its intrinsic value) is known, because if the value (wealth) it has it’s a unit of weight (*qīṭ’at*) lower than the coin of the country its coefficient has to be acknowledge or otherwise dealing with it or letting it into circulation among other coins will led to fraud and delivering it leads towards corruption (or immorality).”

⁴⁸ Ibid.

⁴⁹ As later Ibn Khaldūn will also explain, Ibn al-Ukhūwah recounts how the weight of the “Islamic dirham” was established in 6 *dawāniq* as an average between the then coexisting *dirham al-baghli* (8 *dawāniq*) and *dirham aṭ-ṭabarī* (4 *dawāniq*), and how the first to coinage this dirham was, according to Sa’id bin al-Musīyab, ‘Abd al-Malik bin Marwān, copying the Byzantine and Persian minting. This appears as well in Ṭabarī according to Levy (p. 27). Although the disputes on the weight in grains of each dirham are also acknowledge, the exchange rates between the dirham and the dinār are clearly established in the canonic standards of 10 dirham per each 7 dinārs. Ibn al-Ukhūwah, *The Ma’alim Al Qurba Fi Ahkam Al-Hisba of Diya’ Al-Din Muhammad Ibn Muhammad Al-Qurashi Al-Shafi’i Known as Ibn as-Ukhūwwa*.pp. 82-83 Arabic text.

⁵⁰ Naṣīr ad-Dīn aṭ-Ṭūsī (Ṭūs, Khurāsān, 1201-1274), Iranian philosopher and astronomer, is said to have introduced improvements in the Ptolemaic system which later were to be used by Copernico, who will also combine his works on astronomy and monetary management, to denounce the debasement of coins that spread in the German provinces at his time. See I. N. Veselovsky, “Copernicus and Nasir Al-Din Al-Tusi,” *Journal of*

tyranny are defined in relation to their failure to obey the three levels of laws or justice, which were set by Miskawayh's treatise (God, judge and coin). The third grade of tyranny, the "Petty tyrant," is thus the one who does not proceed in accordance with the third level of law, the monetary law, the law or regulation of the *dīnār*.⁵¹ Therefore, non-observance of this law may refer to contravening the standards of weight and measure set by Islamic jurisprudence for gold and silver coins. That the monarch did not comply with this "law of the *dīnār*" must refer to the fact that the ruler is debasing money; hence, from debaser to tyrant. Indeed, the result of not respecting the law of the dinar entailed "seizure and plunder of properties." Afterwards, to make it far clearer, at-Ṭūsī explains that "the just ruler is an arbitrator in equality, removing and nullifying these misdeeds; likewise, in preserving equivalence, he is the vice-regent of the Divine Law."⁵²

As noted, at-Ṭūsī relied extensively on Miskawayh's 11th-century treatise in writing his own work on ethics. In this text, Miskawayh conceived as well that the monarch who did not obey or respect monetary regulations, which maintain social justice and property, is a lesser kind of tyrant.⁵³ The simile and connection between the two texts and their concepts is once more evident. As Akalay contends, Miskawayh was probably calling for respect of Islamic monetary standards, which seems to be consistent with his statement that one of the king's functions is to safeguard private property;⁵⁴ In this respect, Akalay's inference that in Miskawayh's vision the Imām (arbitrator or ruler in at-Ṭūsī), because the guarantor of justice in exchange and private property, is the protector of the interest of merchants and thus cannot manipulate the value or title of money, seems correct.⁵⁵ However, I would extend that role to

History of Astronomy 4, no. 2 (1973).; Rosinska, however, denied the connection, see Rosinska, "Nasir Al-Din Al-Tusi and Ibn Al-Shatir in Cracow?," *Isis* 65, no. 2 (1974).; Later di Bono responded adding some more evidences for the transmission of some conceptions between the two astronomers, see: M. di Bono, "Copernicus, Amico, Fracastoro and the Mechanism of Al-Tusi: Observations on the Use and the Transmission of a Model," in *Copernicus and the Copernican Question in Italy from the Sixteenth to the Nineteenth Century* (Florence: 1996)..

⁵¹ For monetary law Wickens gives: "*bar hukm-i dīnār na-ravad*," which, indeed, given its similarity with Arabic, seems to refer to the law or regulation of the *dīnār*. at-Ṭūsī, *The Nasirean Ethics*., pp. 98-99.

⁵² *Ibid.*, pp. 98-99.

⁵³ "The function of the *Dīnār* is to maintain social justice (*al-'adl al-madanī*, [civil justice]) in its own sphere. When social justice is established society and its cultural pattern will be maintained, otherwise they will be destroyed. The greatest tyrant is one who does not recognise and submit to the *Sharī'ah*. Next in injustice to him is the person who does not obey the laws of the government in all his dealings and relations. Last of all comes the man who does not earn, but appropriates the property of others." Miskawayh's *Treatise of Ethics*, quoted in Ansari, "The Ethical Philosophy of Miskawayh." p. 235.

⁵⁴ Miskawayh, *Traité D'ethique*., p. 188.

⁵⁵ Akalay, *Histoire De La Pensée Économique En Islam Du 8ème Au 12ème Siècle: Le Marchand Et Le Philosophie*., p. 84.

the protector of all those who hold property. The role of the monarch as the guarantor of the system of property appears as well in Ibn Rushd.⁵⁶

If V. Minorsky's assessment regarding authorship is correct, Aṭ-Ṭūsī wrote a short report or Memorandum on Finance, confirming the statement in the *Nasirean Ethics* about the debaser being a Petty Tyrant. While the *Nasirean Ethics* was written around 1256, this short treatise was probably composed later, once the Mongols had put an end to the Abbasid dynasty after the sack of Baghdad in 1258 by Hūlāgū Khān, grandson of Genghis Khan. More specifically, it was probably written for Abāqā Khān, who came to power in 1265, after Hūlāgū's death, being the second Ilkhān of Persia, one of the four provinces into which by then the Mongol Empire was divided. Minorsky's argument for this is that Abāqā Khān appointed aṭ-Ṭūsī administrator of the pious endowments (*waqf*), a position that aṭ-Ṭūsī praises in the text, which he says should be granted to someone trustworthy, and that later he indeed held.⁵⁷ The text is a kind of short handbook to brief the sovereign about the fiscal administration and practices of the "western" province, with which the Mongolian monarch was not familiar. In the table about the sources of revenues for the kingdom, aṭ-Ṭūsī places debasement among "unlawful levies."⁵⁸ Then, in the section on taxes, among the kinds of taxes that "great kings abhorred," aṭ-Ṭūsī includes also those that accrue "from spoiling gold and silver." Minorsky suggests that this could also refer to debasing or snipping the coins, which would coincide with the position of the author of the other text.⁵⁹ In any case, the clear stand is aṭ-Ṭūsī's opposition against any kind of intervention by the monarch in currency.

c. Indictments against the debasement of the dirham by the Mamlūks: Ibn Taimiyah, Ibn Qayīm, as-Subkī and al-Maqrīzī

The first Mamlūk dynasty, the Bahri, had taken over the Ayyubid dynasty, controlling Egypt and Syria from 1250. Their reign began at a time when a previous silver shortage in the region, the so-called (first) "Great Bullion Famine" of the late medieval period, had come to

⁵⁶ Rosenthal argues that what makes plutocracy in Ibn Rushd to be a preferred form of government is the capacity of the prince to grant stability to his subjects' wealth. See 1969 edition of Rosenthal's translation of Ibn Rushd commentary on Plato's Republic (p. 83/212), quoted in Urvoy, "Les Vues D'averroès Sur La Monnaie Comme Intermediaires Entre Celles D'aristote Et Celles Des Averroïstes Latins." p. 207 (n. 25). Ibn Rushd's commentary says: "The prince of these <States> is the richest and most powerful among them. If there is combined with this also that he possesses the ability to govern them well, in that he acquires for them wealth and guarantees it to them permanently, then it is fitting that he should be master of this State." Ibn Rushd, *Averroes Commentary on Plato's "Republic"*, pp. 212 & 207.

⁵⁷ He died on an inspection tour in Iraq while being the administrator of *waqf* endowments. {Minovi, 1940 #1854}, p. 767. Aspect assessed also by Sarton, who says that he was also adviser and wazīr with Hūlāgū Khān. Sarton, *Introduction to the History of Science (3 Vols.)*. (1931), vol. II, part II, p. 1001.

⁵⁸ {Minovi, 1940 #1854}, p. 779.

⁵⁹ {Minovi, 1940 #1854}, p. 767, (n. 1)

an end, and which witnessed as well a period of important inflows of silver.⁶⁰ This was reflected in the minting of silver coins in Egypt with a relatively higher alloy (70%) by the first Mamlūk sultan, al-Malik al-Mu‘izz Aybak (1250-1257), with respect to the different dirhams circulating in the Ayyubi period. These coins were either 33% silver (black dirhams), or less than 50% silver (depreciation in 1214 with the successor of Salah ad-Dīn), or 66% silver (dirham Kamili, 1225), with higher alloys in some dirhams minted in Syria, which had better access to the Asian silver.⁶¹ Although the successors of Aybak minted dirhams that contained only 65% and 55% of silver, Baibars (1260-1277) increased again the alloy to 70% and, with few exceptions, the quality of silver coins was kept quite high until the second quarter of the 14th century.

Numerous critiques of the debasement of money appeared in texts written in the second half of the 14th century. Explicit mention to debasement can be found in some works written from the late thirteenth to the early fifteenth centuries, in as-Subkī, as well as the already-known critiques expounded in this respect by al-Maqrīzī. Islahi had previously pointed out critiques that, against this practice, raised as well Ibn Taimīyah, an earlier author, and his disciple, Ibn Qayīm al-Jawzīyah. Ibn Khaldūn’s *Muqaddimah* is also from this period.

Ibn Taimīyah (Aḥmad Ibn ‘Abd al-Ḥalīm Taqī ad-Dīn Ibn Taymīyah) was born in Ḥarrān (between Syria and Turkey) in 1263, but at an early age, after the attack by the Mongols, immigrated with his family to Damascus, where he spent most of his life and finally died in prison in 1328.⁶² Educated within the Hanbalī school of jurisprudence, one of the strictest of the *sunni* orthodoxy, and aware of the different movements within and outside Islam that put that orthodoxy at risk, Ibn Taymīyah held a very strong position on the defence of revelation as a main source of knowledge and law, using it to contest political rulers and religious colleagues. Those followers of Ibn Ḥanbal, a disciple of al-Shāfi‘ī, but of more “fanatical and puritanical tendencies” than his master, challenged, under the leadership of Ibn Taimīyah, the supremacy of the Shāfi‘ī school in Egypt and Syria, to which authors such as al-

⁶⁰ Broadly speaking, the “Great Bullion Famine” covered the period 1208/14-1250; to be followed by the second “Great Bullion Famine” in 1392-1412/25; and the third “Great Bullion Famine” of 1455-1465; See Ian Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy*, vol. 3 (Stuttgart: Franz Steiner, 2005), (vol. III), pp. 971-1089

⁶¹ Different recounts from contemporary historians, collected in the studies by Balog and J. L. Bacharach-Gordus, as quoted in Ashtor, *Les Métaux Précieux Et La Balance Des Payements Du Proche-Orient À La Basse Epoque*, pp. 34-36.

⁶² Henri Laoust, “L’influence D’ibn Taimiyya,” in *Islam: Past Influence and Present Challenge*, ed. Alford T. Welch and Pierre Cachia (New York: State University of New York Press, 1979), p. 15. Qamaruddin Khan, *The Political Thought of Ibn Taymīyah* (Islamabad: Islamic Research Institute, 1985), p. i.

Ghazālī or Ibn al-Ukhūwah belonged.⁶³ In their respective intellectual contexts, both al-Ghazālī and Ibn Taimīyah competed for “the power of the pen” and called for authorities to make use of the advice of “learned scholars,” like them.⁶⁴ Concerning money, if the position of al-Ghazālī could be defined as “accommodative,” Ibn Taimīyah’s could be labelled “reactionary”.

Ibn Taimīyah, in contrast to al-Ghazālī, who had emphasized the right and duty of every Muslim to “command the good and forbid the evil” a century and a half before, restricts that right to the “learned” man or the man who has knowledge to distinguish and point out what should be ordained and forbidden, what is good and what causes corruption and evil. People in society had to obey the person (“commander”) who defines in this way what is good and what is bad or corrupted.⁶⁵ Among the learned ones and from the whole set of “Islamic authorities” (or powers) he specially points to the “commander, the magistrate and the *Muhtasib*” to fulfil that leading role.⁶⁶ Consequently, in the *Hisbah fi al-islam*, Ibn Taimīyah raises strong indictments against fraud and cheating in weights or measures, a function attributed to the *muhtasib*. For fraud, Ibn Taimīyah uses the word *ghishsh*, related to commercial transactions and religious affairs.⁶⁷ I have found no claims in his text on *hisbah* that could relate to debasement, other than the section against alchemy (Ibn Taimīyah, like other Islamic jurists, opposes alchemists’ production of gold, silver and other substances, since such creation is a power granted only to God), or the section about the breaking of coins

⁶³ Sarton, *Introduction to the History of Science (3 Vols.)*. (1947), vol. III, part I, p. 103. Indeed, Sarton comments that Ibn Taymīyah’s “fundamentalist” indictment were mainly direct to the two great followers of Shāfi‘ī, al-Ash‘arī and al-Ghazālī (pp. 419-20).

⁶⁴ The Sword, in the hand of the military, and the Pen, in the hand of the scribes, are the two foundations of kingship in at-Tūsī’s Memorandum. {Minovi, 1940 #1854}, p. 770. “Thus it is incumbent on everyone in authority to seek the aid of people honest and impartial,” Continuing with a quote from; (OR, Continuing to quote the Prophet: “To confer on a man a turban (office) when one could find another more worthy of that turban is to betray God, betray His message and betray the Believers.” Ibn Taymīyah, *Public Duties in Islam: The Institution of Hisbah*., p. 24. Ahmad ibn Abd al Halim Ibn Taymīyah, *Al-H: Isbat Wa Mas’ūliyat Al-H: Ukūmat Al-Islāmīyah* (Cairo: Ma‘ūsusāt dār al-Sha‘b, 1967)., p. 15. In the *Counseling for Kings*, al-Ghazālī makes particular emphasis in the importance of the king being just and being advised by pious and just ‘ulama. al-Ghazali, *Ghazālī’s Book of Counsel for Kings (Nas: Īh: At Al-Mulūk)*.p. 13 & 19.

⁶⁵ Ibn Taimīyah uses the term *mafsadat*, which may be translated as whatever that causes corruption or evil. Ibn Taymīyah, *Al-H: Isbat Wa Mas’ūliyat Al-H: Ukūmat Al-Islāmīyah*.p. 8. He seems to suggest that the priority is to obey God and his messenger, as the scripture, over the obedience to the temporal powers. However, this is part of a debate about the political reading of Ibn Taymīyah I am not going to enter into.

⁶⁶ “The responsibility is collective, but becomes individual for the able person when no-one else undertakes it” and “the measure of obligation is ability,” ———, *Public Duties in Islam: The Institution of Hisbah*., p. 23. “*In manāṭa-l-ujūb hua al-qudrat*” Ibn Taymīyah, *Al-H: Isbat Wa Mas’ūliyat Al-H: Ukūmat Al-Islāmīyah*.p. 13.

⁶⁷ The *muhtasib* had to prevent for dishonest behavior or fraud in selling and producing (*ṣanā‘āt* - arts, professions and crafts). Ibn Taymīyah, *Al-H: Isbat Wa Mas’ūliyat Al-H: Ukūmat Al-Islāmīyah*., pp. 20-22. Ibn Taymīyah, *Public Duties in Islam: The Institution of Hisbah*., pp. 29-31. Ibn Taimīyah uses as well the term *ghishsh* in his fatwās, to refer to the possibility of fraud in setting prices. Ibn Taimīyah, *Majmū‘at Fatāwā Ibn Taimīyah*., (*Kitāb al-Ikhtiyārāt al-‘Uhmīyah*), p. 72

in pieces, where Ibn Taimīyah quotes the saying of the Prophet forbidding it “except in dire necessity” (that “dire necessity” being a “serious shortage” of legal dirhams and dinārs).⁶⁸ And, certainly, no such necessity concurred in the context of late 13th-century Syria. However from here, we cannot extend the warning, as Islahi does, from individual action to the state, and hence, extrapolate and contend that Ibn Taimīyah is referring to the state’s responsibility to check the erosion, value and quantity of money in circulation.⁶⁹ As in the case of al-Ghazālī, he is speaking about the moral status of certain individual actions in the market.

It is in Ibn Taimīyah’s collection of juridical opinions, the *Majmū Fatāwā*, that, according to Islahi, his views on currency debasement appear.⁷⁰ In these *fatwas*, Ibn Taimīyah seems to oppose the debasement and “over-production” of money. Islahi’s translation of the passage reads: “The authority should mint the coins (other than gold and silver) according to the just value of people’s transactions, without any injustice to them.”⁷¹ Later, the author qualifies this statement, arguing that “the intrinsic value of coins should match its purchasing power in the market.”⁷² From here, however, it is not clear, first, whether Ibn Taimīyah is speaking of setting the value or the quantity of minted coins; and, second, he seems to refer indeed to copper coins (not gold or silver coins).

Again according to Islahi, Ibn Taymīyah suggests later that the ruler should not intervene in monetary issues. The ruler should not: “start business in money by purchasing copper and minting coins and thus doing business with them; neither should he invalidate the money in the people’s possession nor mint other kinds of coins. Rather, he should mint coins of real value without aiming at any profit by so doing, and while keeping in view the public welfare (*al-maṣlaḥah al-‘āmmah*); he should pay the salary of workers from the public

⁶⁸ For coins Ibn Taimīyah uses the term *sikkat*, that is coined or minted coins, since the “*sikkat*” was the minting place. Ibn Taymīyah, *Al-H: Isbat Wa Mas’ūliyat Al-H: Ukūmat Al-Islāmīyah.*, p. 65; Ibn Taymīyah, *Public Duties in Islam: The Institution of Hisbah.*, p. 68.

⁶⁹ Islahi, “Economic Concepts of Ibn Taimīyah.” p. 184.

⁷⁰ Ibn Taimīyah’s juridical opinions may be found in full, in a collection of 37 volumes, edited as *Majmū Fatāwā Shaikh al-Islām*, or summarized in five volumes, the *Majmū Fatāwā al-Kubra*.

⁷¹ Ibn Taimīyah, *Majmū Fatāwā Saikh al-Islām*, Cairo: Maṭābi‘ al-Riyāḍ, 1963 (Vol. 29, p. 469). Quoted in Islahi, “Economic Concepts of Ibn Taimīyah.” p. 141. Same quote appears in Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis (11-905 A. H./632-1500 A. D.)*, pp. 49-50. I checked the sections dealing about money and coins in the synthesized edition of five volumes and I found no line referring to what Islahi comments on the issue. It would be necessary to check the section Islahi refers to in the complete edition of the *fatwas*.

⁷² Ibn Taimīyah, 1963 (Vol. 29, p. 469); in Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis (11-905 A. H./632-1500 A. D.)*, p. 50. Once more, it would be necessary to check Islahi’s translation of the terms.

treasury (*bait al-māl*). Without doubt, trading in money means opening a great door of injustice for the people and of devouring their wealth by false pretences.”⁷³

This section, if Islahi’s translation is correct, suggests that Ibn Taimīyah is speaking about copper coins. Therefore, Ibn Taimīyah is pointing to the problem of “small change,” which would make him of particular interest in our analysis as a predecessor to al-Maqrīzī’s later indictments on the issue, as we will see. However, it is quite likely that, when Ibn Taimīyah refers to the introduction of new coins and the invalidation of old ones, this shift concealed a change in its intrinsic value. Thus, he was probably criticizing certain moves in that direction by the authorities of the moment; hence, the claim for a coin of “real value.” Ibn Taimīyah’s actual critique of debasement is supported by his explanation of how these changes in coins eroded rents and wealth.⁷⁴ Another interesting aspect is that when Ibn Taimīyah calls for salaries to be paid out of the public treasury, he is probably opposing additional money being created solely to finance the costs of the state, that is, the “monetization” of public expenses, an arbitrary increase of the money supply to finance public deficit, which would be in consonance with the previous statements.

Ibn Taimīyah’s statements about coins and their debasement can be clarified and confirmed in the work of his principal pupil: Ibn Qayīm al-Jawzīyah (Damascus, 1292-1350); who is said to have basically followed his master.⁷⁵ In the *Ṭurūq al-Ḥukmīyah fī as-Siyāsah ash-Sharī‘īyah*, or treatise on the legal ways in Islamic law politics, Ibn Qayīm highlights how it is forbidden to corrupt, depreciate or devalue (*ifsād*) people’s coins or to change them.⁷⁶ He argues that, since coins are like capital or the representatives (heads) of capital, it is possible to perform business operations using coins but not to perform operations on them. About the authorities, Ibn Qayīm also emphasizes that it is forbidden for them to mingle or be

⁷³ Same quote: Ibn Taimīyah, *Majmū Fatāwā Saikh al-Islām*, Cairo: Maṭābi‘ al-Riyād, 1963 (Vol. 29, p. 469); in *Ibid.*, p. 50; or in Islahi, “Economic Concepts of Ibn Taimiyah.” p. 141.

⁷⁴ “If the ruler changes the use of a certain coin and mints another kind of money for the people, he will spoil the riches (*ammāl*) which they possess, by decreasing their value as the old coins will not become merely a commodity. He will do injustice to them by depriving them of the higher values originally owned by them.” Ibn Taimīyah, *Majmū Fatāwā Saikh al-Islām*, Cairo: Maṭābi‘ al-Riyād, 1963 (Vol. 29, p. 469). As quoted in Islahi, “Economic Concepts of Ibn Taimiyah.” p. 143.

⁷⁵ Essid defends that he basically copied Ibn Taimīyah. Abdul Azim Islahi, *Economic Thought of Ibn Al-Qayyim (1292-1350 A.D.)* (Jeddah: International Centre for Research in Islamic Economics, King Abdulaziz University, 1984), p. 2.

⁷⁶ “*Wa yamna‘u min ifṣādi nuqūdi al-nāsi wa taghyīrihā*,” Muhammad ibn Abi Bakr Ibn Qayyim al Jawziyah, *Al-Turuq Al-Hukmiyyah Fi Al-Siyasah Al-Shar‘iyyah* (Beirut: Dār al-Fikr al-Lubnānī, 1991), p. 214.

associated with coins and minting issues or to do business with them, hence confirming Ibn Taimīyah's views.⁷⁷

An explicit critique against authorities debasing coins, instead of mere condemnations of some individuals' behaviour in putting copper coins in circulation, appears in elsewhere. Islahi points out how in another text, the *I'lām al-Muwaqqi'īn* (Advices for signatories), Ibn al-Qayyīm defends the need for currency to be a fixed and stable standard of value, following, in this regard, Aristotle's commentary tradition that we saw in the previous chapter. The consequence of possible fluctuations in the standard of value would be deterioration in people's transactions, with no reference, however, to inflation.⁷⁸

I have found a note about the issue of debasement as well in one of the late treatises of Taj-al-Dīn as-Subkī (ca. 1327-1370), a younger contemporary of Ibn Qayīm and also a Cairean scholar. Although born in Cairo around 1327, Taj-al-Dīn as-Subkī (Taj al-Dīn 'Abd al-Wahhab ibn 'Alī as-Subkī) received his higher education in Damascus, where he moved around 1338 (739) with his father Taqī ad-Dīn 'Alī as-Subkī, as the latter belonged to the Shāfi'ī school of Islamic jurisprudence.⁷⁹ From 1355, when only 28 years old, until his death in 1370, as-Subkī replaced his father as Chief Judge of Damascus, with the exception of some periods in which he was removed from office, and returned to Cairo, to be reinstated later.⁸⁰

As-Subkī's *Kitab muid an-niam wa-mubid an-niqam* [The restorer of favours and the restrainer of chastisements] is not a treatise on *ḥisbah* but deals with the duties and role of the *muḥtasib* as part of a larger report on professions, jobs and offices in the Mamluk social

⁷⁷ The authority seems to refer explicitly to the sultan: "*in takūnu an-nuqūda ru'ūsa amwālī, yuttajiru bihā, wa lā yuttajiru fihā. Wa idhā ḥarama as-sulṭāna sikkatan aw naqdān mana'a min al-ikhtilāṭi bimā adhina fī al-mu'āmalati bihū.*" Ibid., p. 214.

⁷⁸ "dirham (silver coin) and dinar (gold coin) are names of prices of merchandise. And price is the standard through which values of goods are known. So this standard should be fixed and stable. It should not fluctuate. For if the measure of prices rises or falls like other commodities, there would be no way to evaluate the goods; all would be commodities. It is people's inevitable common need to have a measure of price through which they can measure the value of merchandises. And that is not possible without a standard that can define the value. Such a measuring rod should be stable and it should not be subject to evaluation by some other thing. If it were so, it would be like any commodity whose value rises and falls. Consequently, people's transactions will be deteriorated; disputes will arise and there will be tremendous injury." *I'lām al-Muwaqqi'īn*, vol. 2 (Cairo: Maktabah Dar al-Turath, 1955), p. 137; quoted in Islahi, *Economic Thought of Ibn Al-Qayyim (1292-1350 A.D.)*, p. 16-17.

⁷⁹ Sartori converts it into 1339. Sartori, *Introduction to the History of Science (3 Vols.)*. (1947), vol. III, part I, pp. 622 and 103; and part II, p. 1099.

⁸⁰ See David W. Myhrman, "Introduction," in *Kitab Muid an-Niam Wa-Mubid an-Niqam [the Restorer of Favours and the Restrainer of Chastisements]* (London: Luzac & Co., 1908), pp. 15-21. It seems that he was in jail and then rehabilitated after being accused of having embezzled trust money. Sartori, *Introduction to the History of Science (3 Vols.)*. (1948), vol. III, part II, p. 1781.

structure analyzed by the author.⁸¹ The book claimed to be, according to Myhrman, “a true and trustworthy guide to a life of success, good fortune and happiness”, a practical manual of moral and spiritual advice about the correct way to behave in every profession and office.⁸² Its aim is to explain how the reasons for losing divine favour derived from maintaining patterns of behaviour that departed from Islamic ideals. In this way, as-Subkī, explains, what is considered to be proper behaviour for every position, which may help to regain lost divine favour or, at the very least, peace with God. Hence, within the right models of behaviour, the proper activity of the *muḥtasib*, in addition to his traditional duties – guaranting provision (and imports) of goods in markets, respect of moral standards in their consumption, and correct or sound (fair) determination of prices to avoid periods of inflation (*zamān al-ghalāʾ*) and shortages –, as-Subkī comments how another of the *muḥtasib*’s duties, exigencies or requirements (*muḥimmāh*), is to control the type of coins that are used in the markets and their quality.⁸³ It is the only explicit statement that I have seen concerning monetary control by the *muḥtasib* in the market. Furthermore, as-Subkī states that the only coins that may be used are those fixed or predetermined (*muḍarabayni*, agreed upon) gold and silver coins.⁸⁴ He does not name which coins, which values or exchange rates, but we can assume he refers to canonic standards. The argument he gives is that everybody knows that debasement or adulteration (*zaghal*) of those coins leads to ruin of the wealth of humanity; hence, the need to control the Muslim mint, for which Ibn ‘Abdūn also advocated.⁸⁵ The mint as the institution responsible for weight and quality of coins is a fact that, as we have seen, Ibn Khaldūn declared in his *Muqaddimah*, some years later, in Tunis, 1377.⁸⁶ According to David W. Myhrman, as-Subkī must have written the treatise at some point after 1359.⁸⁷ From different chronicles we know

⁸¹ Taj al Din Abd al Wahhab ibn Ali al-Subki, *Kitab MuʿId an-NiʿAm Wa-Mubid an-Niqam [the Restorer of Favours and the Restrainer of Chastisements]*, trans. David W. Myhrman (New York: AMS Press, 1908), 1908.

⁸² Myhrman, "Introduction." p. 37.

⁸³ al-Subki, *Kitab MuʿId an-NiʿAm Wa-Mubid an-Niqam [the Restorer of Favours and the Restrainer of Chastisements]*, pp. 92-93

⁸⁴ “*wa mīn muhammāt-al-muḥtasib lā siyyamā fī balādi ash-Shaʿm amrāni irtibāṭa bihi aḥaduhumā an-nuqūdu min-aḍ-ḍahabi wal-fiḍḍati al-muḍarabayni*” Ibid., p. 93

⁸⁵ “*wa lā yaḳāfā inna fī zaḡalihumā halāka amwāl al-bashari faʿalayhi lʿtibāru al-ʿibbʿara bimihakki an-naḡara wa-l-taṭabbata fī sikkat-al-muslimīn*” Ibid., p. 93.

⁸⁶ He wrote the *Muqaddimah*, an original piece of work with which Ibn Khaldūn introduces his global History, probably in a parenthesis of his public career, as Malikī jurist, judge and diplomat for the Maghrebi emirs, during his retreat in Qalʿat Ibn Salāmah (Oran) between 1375 and 1378. Walter J. Fischel, "Ibn Khaldūn in Egypt: His Public Function and His Historical Research (1386-1406). A Study in Islamic Historiography," (Berkeley: University of California, 1967).p. 17.

⁸⁷ al-Subki, *Kitab MuʿId an-NiʿAm Wa-Mubid an-Niqam [the Restorer of Favours and the Restrainer of Chastisements]*, p. 35.

that since 1348 the dirham had been debased in Egypt, becoming only 50-60% of silver by the end of the century, precedings the coming second Great Bullion Famine in the Middle East.⁸⁸

The stronger indictments against manipulation of the value of money may be found, however, in al-Maqrīzī, whose work and professional career we will examine in more detail in following chapters. Taqī ad-Dīn al-Maqrīzī (1364-1442) lived in Cairo and Damascus during the Burji dynasty, second dynasty of the Mamlūk reign in Egypt and Syria. Follower of the Shafi‘ī school of Islamic jurisprudence, he worked as jurist, professor and *muḥtasib*.⁸⁹

The concurrence of black money and famines created a difficult socioeconomic and political context from which al-Maqrīzī denounced the mismanagement of rulers concerning monetary affairs in two texts: the *Ighāthah al-Ummah bi-Kashf al-Ghummah* (Assisting the nation by investigating the depression, c. 1405) and the *Shudhūr al- ‘Uqūd fī dhikr al-Nuqūd* (Pearls of the divine commands regarding money, c. 1415). In respect to his monetary ideas, he maintains the traditional line in Islamic jurisprudence that we have already extensively described. In accordance with the monetary premises of the Shāfi‘ī school of jurisprudence, al-Maqrīzī asserts that only gold and silver should be used as money, legal tender, although he accepts the use of a very limited amount of copper to satisfy the needs of small and daily transactions.⁹⁰ Yet, in both the *Ighāthah* and the *Shudhūr*, before presenting a series of monetary proposals that we will examine in following chapters, al-Maqrīzī offers a narration of the history of money and monetary measures of previous times that denounces its debasement, use of black money and mixing silver with copper, by the Mamlūks.⁹¹ The terms

⁸⁸ Mainly from al-Maqrīzī; see also the works by Bacharach-Gordus and Balog, quoted in Ashtor, *Les Métaux Précieux Et La Balance Des Payements Du Proche-Orient À La Basse Epoque.*, pp. 40-43.

⁸⁹ Most authors set al-Maqrīzī's birth date in 1364 A.D. F. Rosenthal, "Al-Maqrīzī," in *Encyclopédie De L'islam* (1986).; Nasser Rabbat, "Who Was Al-Maqrīzī? A Biographical Sketch" (paper presented at the Mamlūk Studies Review (Symposium 'Medieval Arabic Historiography: The Legacy of al-Maqrīzī (1364-1442)), Chicago, 2003 2003)., p. 6; Mark Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary," in *Joseph A. Schumpeter, Historian of Economics: Perspectives on the History of Economic Thought*, ed. Laurence S. Moss (London: Routledge, 1996)., p. 110. Previously, Casiri's catalogue and Tychsen, who was making used of the former, had considered that al-Maqrīzī was born in Heliopolis, Syria, in 1367 (769), dying in 1441 (845). Miguel Casiri, *Biblioteca Arabico Hispana Escorialensis*, 2 vols. (Madrid: 1760-1770)., p. 173. Taqī ad-Dīn Ahmad ibn Alī al-Maqrīzī, *Historia Monetæ Arabicæ E Codice Escorialensi Cum Variis Duorum Codicum Leidensium Lectionibus et Excerptis Anecdotis* [*Shudhūr Al- ‘Uqūd Fī Dhikr Al-Nuqūd*], trans. Tychsen Olao Gerhardo (Rostock: Ex Officina Libraria Stilleriana, 1797)., p. 4. ‘Ashūr states that al-Maqrīzī was born in Cairo in the year 766 of the Hegira, which, in the Christian calendar, corresponds to the period between October 1364 to mid September 1365, however he converts it into 1356. *Sa‘īd Abd al-Fatāh ‘Ashūr, "Taqdīm," in Ighāthah Al-Ummah Bi-Kashf Al-Ghummah* (Cairo: Dār al-Hilāl, 1990)., pp. 8-9; Rabbat, "Who Was Al-Maqrīzī? A Biographical Sketch"., p. 6.

⁹⁰ The basic problem is to use that copper as a general measure of value for prices and salaries. Taqī ad-Dīn Ahmad ibn Alī al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah* (Cairo: Dār al-Hilāl, 1990)., p. 113.

⁹¹ Different authors have already pointed out al-Maqrīzī's indictments against the debasement of the coin. See chapter four.

al-Maqrīzī uses for debasement are: *Ṣāra nuqṣān*, to make something decrease, diminish or be defective, imperfect; and *ḡashsh*, uses adulteration, deceit, debasement.⁹² In the *Shudhūr*, in the section praising the reintroduction of sound silver coins by sultan Mu‘ayad Shaikh, al-Maqrīzī illustrates his argument with the mention of a *hadith* that orders one to “prevent the dinar and the dirham from corruption or flaw (*fasād*) in the earth.”⁹³ He says this is in compliance with the *sunnah* of the Prophet since the “prophet commanded that almsgiving were given in sound silver, not debased” (*maghshūsh*).⁹⁴ In that same section he also suggests that only certain sects of those deviated or corrupted had debased the coin and those who cheat us (debasement of the coin) are not one of us.⁹⁵ This is a clear reference to the so-considered foreign Mamlūk rulers, of Circassian origin and Turkish speaking, who indeed had started debasing money already at the middle of the 14th century, multiplying it until the end of the bullion famine at the end of that century and beginning of the 15th century. Indeed, al-Maqrīzī had also said in the *Ighāthah* that the Turks had brought with them a whole series of ill-fated innovations, among them the alteration of dirhams.⁹⁶

d. Al-Sunāmī: allusions to the monarch who debases the coin during the Turkish dynasty of Taghlaq in India

Another mention to debasement appears also in another treatise of *ḥisbah*, the *Niṣāb al-iḥtisāb* by ‘Umar b. Muḥammad al-Sunāmī, during periods of monetary manipulation and economic despair.⁹⁷ Al-Sunāmī lived at the end of the 13th and beginning of the 14th century and seems to have worked as *muḥtasib* and chief judge in India. Although not an explicit critique, in the treatise, he makes a reference to “that practice” which became common among sultans and through which new-valued money was introduced but a new money that ended up being devalued by the time those sultans left power, which had bad connotations for the reputation of those monarchs.⁹⁸ Although he points to no particular monarch, al-Sunāmī probably

⁹² al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*, pp. 104 & 106.

⁹³ “*qaṭa’a ad-dīnār wad-dirham min al-fasād fil-’ard*,” Taqī ad-Dīn Ahmad ibn Alī al-Maqrīzī and Daniel Eustache (trans.), “Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-‘Uqūd Fi Dhikr Al-Nuqūd],” *Hespéris-Tamuda* 10, no. 1-2 (1969), p. 133.

⁹⁴ Ibid., p. 133.

⁹⁵ “*la taghshi ilā ‘aindi taghlabu al-māraqīn itbagū qawm qad ḡalū*” and then “*min ḡashnā falaysa minnā*,” al-Maqrīzī also argues that the use of sound silver coin is that it prevents from greed. Ibid., pp. 133-34.

⁹⁶ “*l’on vit paraître un grand nombre de nouveautés funestes, que Dieu ne permet pas, notamment l’altération des dirhems*.” Notice here the influence of Ibn Khaldūn, when al-Maqrīzī says: “*L’indolence ruina la dynastie*.” Gaston Wiet, ed., *Le Traité Des Famines De Maqrīzī* (Leiden: E. J. Brill, 1962), p. 61.

⁹⁷ ‘Izzī al-Dīn says to resemble a note-book although the author says it to be a guide or manual for *muḥtasib* [Niṣāb: 1B, 70A]. ‘Izzī al-Dīn, *The Theory and the Practice of Market Law in Medieval Islam. A Study of Kitāb Nisab Al-Ihtisab of Umar B. Muhammad Al-Sunāmī (Fl. 7th-8th/13th-14th Century)*, p. 10.

⁹⁸ Niṣāb: 37B, quoted in Ibid., p. 5.

referred to sultan Muḥammad Ibn Taghlaq or Tughluq, who reigned in Delhi between 1325 and 1351.⁹⁹ Muḥammad Ibn Tughluq was known by the nickname ‘prince of moneyers’ because he introduced various innovations in the minting of coins, multiplying their number, introducing some experiments with copper token money, following the example of the Chinese.¹⁰⁰ During the time of Muḥammad Ibn Tughluq, particularly around 1343-51, a series of famines or epidemics also contributed to raising rebellions against the “tyrant” at the end of Ibn Tughluq’s reign.¹⁰¹ According to ‘Izzi al-Din, he introduced the ‘black *tantra*’, a subdivisional currency where silver and copper were mixed arbitrarily, which probably were the black dirhams (*mukahḥal dirḥāms* or blacken *dirḥāms*) Sunāmī then refers to.¹⁰² It led to the spread of new, debased and token coins that were easily forged. Thus, although in a very subtle way, al-Sunāmī is implicitly criticizing the debasement of money, and, moreover, probably the monetary manipulations and debasements of silver coins introduced by sultan Muḥammad Ibn Tughluq.

Some conclusions may be drawn about the relationship between these authors.. Taj-al-Dīn as-Subkī read and quoted Ibn Taymīyah, and it is possible that al-Maqrīzī in turn read as-Subkī. Indeed, al-Maqrīzī seems to make reference to or even paraphrase as-Subkī’s text in the title of his book. As-Subkī started his explanation of the *muḥtasib*’s work stating the general common duties of the office in assuring provision of foodstuff and consumption of food and drink in the city according to the principle and values of an Islamic society. The actual phrase he used to begin this section is: “it is the duty of the *muḥtasib* to supervise the provision of food and to investigate the causes of the distress of the Muslims [*kashf ghummat-al-muslimīn*].”¹⁰³ To investigate the causes of “the” affliction (*kashf al-ghummaḥ*) is the means by which al-Maqrīzī proposes to help the nation in his treatise. He indeed uses those

⁹⁹ Muḥammad Ibn Taghlaq was the second monarch of the Turkish dynasty of Taghlaq or Tughluq, which lasted from 1320 till the end of the century (1412, according to Sarton) and seems to have achieved its “golden age” during his reign, expanding southward. More information in: Agha Mahdi Ḥusain, *The rise and fall of Muḥammad ibn Tughluq*, (London, 1938), reviewed by H. Dodwell (Bulletin of the London School of Oriental Studies 9, 1117-8); quoted in Sarton, *Introduction to the History of Science* (3 Vols.). (1947), vol. III, part I, p. 40-41.

¹⁰⁰ See article "Muhammad Bin Tughluq," in *Wikipedia, the free encyclopedia* (available in the web: http://en.wikipedia.org/wiki/Muhammad_bin_Tughlaq (20/12/2007)).

¹⁰¹ ———, *Introduction to the History of Science* (3 Vols.). (1948), vol. III, part II, p. 1026.

¹⁰² ‘Izzi al-Din, *The Theory and the Practice of Market Law in Medieval Islam. A Study of Kitab Nisab Al-Ihtisab of Umar B. Muhammad Al-Sunami (Fl. 7th-8th/13th-14th Century)*., pp. 5-6.

¹⁰³ “wa ‘alayhi an-naẓaru fī al-kauti wa-kashfī ghummat-al-muslimīn fīmā tad‘u ḥājatahum alayhu min ḍalika wa-l-ihtarāzu fī al-mashrūbi...” al-Subki, *Kitab Mu‘Id an-Ni‘Am Wa-Mubid an-Niqam [the Restorer of Favours and the Restrainer of Chastisements]*., p. 92.

same terms in the title: *Ighāthah al-Ummah bi-Kashf al-Ghummah*, which seems to be paraphrasing as-Subkī. The latter died some years after completing the treatise we have mentioned, in the plague of 1370, while al-Maqrīzī wrote his treatise after the death of his daughter in the plague at the beginning of the 15th century, around 1405.¹⁰⁴ Written only three decades later, and al-Maqrīzī being a jurist, working as a *muhtasib* in Cairo, his allusion to as-Subkī's text seems quite obvious. The kind of affliction that al-Maqrīzī pretends to solve is not only the "moral depravation or degeneration" of Muslims but the economic crisis resulting from the misbehaviour of certain officials within the political apparatus. Besides, al-Maqrīzī, as we will see with more detail in following chapters, turned to the Shāfi'ī school of jurisprudence at an early stage in his professional career, which was also the affiliation of as-Subkī, as it was of al-Ghazālī and Ibn al-Ukhūwah, and the most powerful school in Egypt at that time.¹⁰⁵ Belonging to the apparatus did not restrain al-Maqrīzī or as-Subkī from raising strong indictments against the policy of the ruling Mamlūk dynasty.

About the connection between these texts and comments about debasement, both al-Sunāmī and al-Maqrīzī denounced the appearance of "black coins." Nevertheless, the only link I can think of between the two authors, for the moment, appears in the similar description they used to refer to some sufi groups and their practices, but these were probably due to their use of common sources.¹⁰⁶ The connection between al-Maqrīzī and Ibn Khaldūn is however closer. The latter, who, in his historical analysis placed quite a share of responsibility for the fall of dynasties on the corruption and mismanagement of elites and rulers, had quite an influence at the personal and intellectual level on al-Maqrīzī, who is said to have assisted his lectures in Cairo.¹⁰⁷ There is clear evidence that al-Maqrīzī read the work of Ibn Khaldūn and,

¹⁰⁴ We will see these details in chapter four.

¹⁰⁵ Connecting as-Subkī and al-Maqrīzī, there is another shāfi'ī muhtasib, 'Abd al-Rahīm Ibn al-Ḥasan al-Isnawī al-Qurashī al-Shāfi'ī, also born in Egypt (Isna, or Esna, Latopolis, upper Nile, 1305-1370), that studied in Cairo under al-Subkī's father (Ṭaqī al-dīn 'Alī al-Subkī) and that from 1327 was a teacher in various madrasas (madāris) of Cairo. He also explained the Qur'ān in the mosque of Ibn Ṭūlūn. A contemporary of his, also working from Egypt although of Hindu origins, 'Umar Ibn Ishāq al-Hindī (1312-1372), wrote a treatise on 'Abd al-Wahhāb al-Subkī's (as-Subkī's son?) legal principles (*Jam' al-jawāmi' fi-l-uṣūl*). Sarton, *Introduction to the History of Science* (3 Vols.). (1938), vol. III, part II, pp. 1453-54.

¹⁰⁶ Al-Sunāmī describes Ḥaydar, the leader and the sufi group of the Ḥaydarīs, in the part about their custom of wearing iron rings all over the body. According to 'Izzī al-Dīn al-Maqrīzī gives a very similar recount of the sufi leader in the Kḥiṭaṭ, quoting the book by al-Ḥasan Muḥammad, *al-Sawāniḥ al-adabiyya fī madā'iḥ al-qunnnabiyya*. Maqrīzī, *Kḥiṭaṭ*: 3:205, quoted in Izzi al-Dīn, *The Theory and the Practice of Market Law in Medieval Islam. A Study of Kitab Nisab Al-Ihtisab of Umar B. Muhammad Al-Sunami (Fl. 7th-8th/13th-14th Century)*, p. 13. Similar parallelisms appear when describing the use of hemp in that group.

¹⁰⁷ Ibn Khaldūn arrived to Cairo, in the last stage of his life, when al-Maqrīzī was in his twenties. Fischel, "Ibn Khaldūn in Egypt: His Public Function and His Historical Research (1386-1406). A Study in Islamic Historiography." For the sympathy and admiration of al-Maqrīzī for Ibn Khaldūn, who the former listed as one of his professors, see the biographical work on al-Maqrīzī by Muḥammad Kamāl al-Dīn 'Izz al-Dīn (Beirut, 1990 & 1992), quoted in Rabbat, "Who Was Al-Maqrīzī? A Biographical Sketch", p. 11; Allouche also

thus probably shared his view that one of the functions of the *ceca* was to control the quality and weight of coins, to avoid their debasement. Ibn Khaldūn, born four years before Ibn Taimiyah, had been influenced to a certain extent as well by al-Ghazālī, if not also by Ibn Taimiyah.¹⁰⁸ He also used Ibn Rushd, particularly his commentary on Plato's *Republic*.¹⁰⁹

II.2.2. *Writings and critiques against debasement in the Christian world*

The process of monetization of transactions and, particularly, rents, brought the need for new adjustments and transformations into power relations in Medieval Europe. If the broad use of money meant that the prince or emperor could extract revenues from reminting and debasement of money, it also meant important losses for those whose rents were now defined in money, landlords, which meant the nobility and the church. Moreover, repayment laws reflect an awareness of losses and damage caused by the fluctuating value of money and its debasement. Difficulty in setting the current value of money led to a progressive acceptance of intrinsic value as the best way to calculate fair repayment.

Several phases of trends may be distinguished in theoretical discussions about money and its management in the Latin world in the late medieval period. Until the 13th century and during the period of consensus and bargaining concerning the right to coinage, some authors had already demonstrated certain concerns or an awareness of the need for good and undebased money to circulate, as well as the need for respecting what is defined as "legal money" in a particular location. During a first wave of debasements at the end of the century, initial indictments against that practice emerged; while critiques became more explicit and theoretically developed in the second wave of debasement that would accompany the Hundred Years War. It is in this framework that the famous works by Buridan and Oresme, which stated the rule of the community over money, appeared. We will examine these works to see how concepts and arguments developed and allow for a comparison with the comments

mentions that al-Maqrīzī assisted to Ibn Khaldūn's lectures, Adel Allouche, *Mamluk Economics : A Study and Translation of Al-Maqrizi's Ighathah* (Salt Lake City: University of Utah Press, 1994), p. 16; for the influence and relationship of the two see, among others: Anne F. Broadbridge, "Royal Authority, Justice, and Order in Society: The Influence of Ibn Khaldūn on the Writings of Al-Maqrīzī and Ibn Taghrībirdī" (paper presented at the Mamlūk Studies Review (Symposium 'Medieval Arabic Historiography: The Legacy of al-Maqrīzī (1364-1442)), Chicago, 2003), pp. 233-34; Robert Irwin, "Al-Maqrīzī and Ibn Khaldūn, Historians of the Unseen" (Chicago, 2003), pp. 223-25.

¹⁰⁸ 'Alī al-Wardī's study defends that al-Ghazālī and Ibn Taimīyah's influence in Ibn Khaldūn can be seen in his critics on Logic. Al-Wardī, 'Alī, *Manṭiq Ibn Khaldūn* (Tunis: Shirkah al-Tūnisīyah li al-Tawzī', 1977), p. 48. Islahi, "Economic Concepts of Ibn Taimiyah," p. 251.

¹⁰⁹ Different textual evidences, see notes by Rosenthal. Ibn Khaldūn, in relation to battle and war also quotes the *Politics* of certain "pseudo-Aristotle." Ibn Khaldūn, *Ibn Khaldūn: Discours Sur L'histoire Universelle Al-Muqaddima...* p. 402.

and indictments against debasement and manipulation of money that scholars had also made in the Islamic world.

a. Early references to “bad” or “debased” money: Guibert de Nogent and Gerald of Abbeville

Monroe traced back to 1110 the first indictment of “bad money,” by Guibert de Nogent (c. 1053-1124), the French Benedictine theologian and historian of the First Crusade. Monroe stated that from then on “debasement is spoken of as a public calamity.”¹¹⁰ However, quoting Babelon, Monroe does not make reference to Nogent’s work that contains that indictment. At least in his autobiography or memoirs, composed about 1115, Nogent not only speaks indeed of “bad money” but makes an explicit critique of the debasement of money introduced not by the king but by corrupted minters and clerical authorities of Laon’s region.¹¹¹ He speaks of the fraud, loss of wealth and ruin that putting those debased coins into circulation brought to the region.

Although after the fact, seen in the perspective of the kinds of abuse Nogent describes, Gerald of Abbeville’s position on the theory of coinage and currency, which Langholm perceives as “unusual” in relation to the theological and philosophical literature of the period, seems more likely or understandable. Gerald of Abbeville (d. 1272), theologian and chancellor of Paris from 1263 to 1268, stated in his *Quodlibets*, dated 1265 or 1266, that: “to strike money and to protect it are the prerogatives of the king.”¹¹² In this way, the king is not

¹¹⁰ Ernest Babelon, *La Théorie Féodale de la Monnaie*, (Paris, 1909), pp. 295-96; quoted in Monroe, *Monetary Thought before Adam Smith*, p. 20.

¹¹¹ “...the coiners of the currency, knowing that if they did wrong in their office, they could save themselves by money bribes, corrupted the coinage with so much base metal that through this very many were reduced to poverty. For as they made coins of the cheapest bronze, which in a moment by certain dishonest arts they made brighter than silver, (shame on them !) fond men were deceived, and giving up their goods of great or little value, got in exchange nothing but dross. And the patient suffering of this by the Lord Bishop was well rewarded, and thus not only within the province of Laon but in all directions the ruin of many was hastened. And when he was deservedly powerless to uphold the value of his own currency wickedly debased by himself, he instituted pence of Amiens, also most debased, to be current in the city for some time; but when he could by no means keep that up, he struck an impression of his own time, on which he had stamped a pastoral staff to represent himself. This was received with such laughter and scorn, that it had less value than the debased coinage.” He also speaks later of a monk that brought silver from Flanders and minted with it coins of very low alloy “bringing in lies, perjury and want, he robbed his country of truth, justice and wealth. No act of an enemy, no plunderings, no burnings have hurt the province more ever since the Roman walls contained the ancient mint of the city.” Guibert de (d.1124-25) Nogent, *The Autobiography of Guibert, Abbot of Nogent-Sous-Coucy. English Translation by C.C. Swinton Bland* (London: George Routledge, 1925), Medieval Sourcebook, Available in the Web: <http://www.fordham.edu/halsall/basis/Guibert-Vita.html> (04/01/2008)., (About the city of Laon) Book III, chapter VII; biographical information from “Guibert of Nogent,” in *Wikipedia* (available in the web: http://en.wikipedia.org/wiki/Guibert_of_Nogent (04/01/2008)).

¹¹² *Quodl.* VII, 4 (IV, 4) (edited with a commentary by Coment, pp. 193-96); quoted in Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 279.

only granted the right to coinage but also the duty “to protect it,” which could refer to preventing those kinds of abuse from minters or local authorities; hence, a call to strengthen and centralize control of coinage. However, Abbeville forecasts as well the possibility of the deceiver being the monarch, in issuing debased money.¹¹³ Written in response to an ordinance of Saint Louis that forbade circulation of *sterling*, at a time when the king, at least in relation to later standards, was not particularly making a high use of debasement, Abbeville’s text is “almost prophetic,” as Langholm suggests, of the series of debasements that Saint Louis’ successors would introduce.¹¹⁴

Moreover, he not only foretells the problems debasement would bring but he also seems to anticipate those related to the coexistence of good and bad money, which “leads to fraud and loss”; a problem that will become particular acute in the next century with the overproduction of small change. Abbeville defines good money as that which fulfils three requirements: having a certain weight, due material, and an official stamp.¹¹⁵ His argument is that the simultaneous circulation of good and bad money easily “leads to fraud and loss.”¹¹⁶ Removing inferior coins according to these criteria as well as implementing circulation of “legal currency” benefits the common good. Thus, it seems to entail that the king should take care of those aspects as well.

Both authors seem to be complete defenders of the currency established as “legal money” in each place; money identified by its intrinsic value.

b. Calls for the stability of the medium of exchange among Classic scholastics: Albert and Aquinas

We have seen how some authors who have been usually considered as portraying a “nominalist” stand on money or backing the prince’s arbitrary power over the value of money, in contrast, took into consideration the material nature of money and called for maintaining its stability, either as a result of reading Aristotle, influenced by Roman law or other ancient political texts, including Bryson’s and Cassiodorus’. Albert the Great (1193/1207-1280) argued: first, that money “ought to be” firm (*certa*);¹¹⁷ and second, that the mark stamped on a

¹¹³ “the king is also in a position to defraud his subjects by issuing inferior money as to form and material, and he should therefore watch out lest cupidity rather than charity govern his monetary policy.” Langholm’s comment; *Ibid.*, p. 279.

¹¹⁴ *Ibid.*, p. 279.

¹¹⁵ *Quantitas ponderis, debita materia, publica forma*; *Ibid.*, p. 279.

¹¹⁶ *Ibid.*, p. 279.

¹¹⁷ *First Commentary*, p. 346; quoted in *Ibid.*, p. 194.

coin was a guarantee of its “purity of metal.”¹¹⁸ From the sections noted, it seems that he was defending the stability of the value of money in intrinsic terms.¹¹⁹

In line with Albert, Henry of Ghent (d. 1298) also considered the mark stamped on a coin as a sign of the quantity and weight of the precious material it was made of.¹²⁰ Albert’s disciple, Thomas Aquinas (1225/27-1274), in contrast, stated that the mark stamped on coined money is imposed to guarantee its quantity, without reference to its quality.¹²¹ However, following Aristotle also, he too emphasized the need for justice in exchanges and, more importantly, the need for a stable measure of value. In the commentary on the *Ethics*, Aquinas stated that money “ought to be so established as to retain the same value more permanently” as do other goods, referring to the value of money in relation to its capacity to buy things.¹²² Hence, Aquinas calls for stability of the value of money, but referring to its purchasing power; whether this means to adjust its face or intrinsic value is not clarified.

Some authors have pointed out that Aquinas, in the *Summa Theologica*, comes to grant the prince the power to change the value of money.¹²³ Indeed, for Aquinas, following Aristotle, making the law is a prerogative of the prince, who is also the guardian of justice.¹²⁴ However, he does not explicitly give any arbitrary power to the prince to change the value of money in this respect. There is no reference to the prince in Aquinas’ commentary to the

¹¹⁸ *Comm. Pol.*; pp. 55-56; quoted in *Ibid.*, p. 194.

¹¹⁹ It may reflect the influence of Cassiodorus, who Albert was reading and quoting in different sections of his text. *Ibid.*, p. 177

¹²⁰ “and exchange ought not, as was said, be made except by equality, therefore of necessity there was invented the use of money, made of a precious and useful material with due quantity and weight indicated by a sign impressed on it” *Quodlibet* VI, 22; *Opera*, X, at p. 206; cp. *Quodl.* I, 39; *Opera*, V, at p. 213; quoted in *Ibid.*, p. 266.

¹²¹ [*Sent. Pol.*, I, 7] Aquinas and Alvernia, *Comentario a La Política De Aristóteles.*, p. 81.

¹²² “sed tamen taliter debet esse institutus, ut magis permaneat in eodem valore quam aliae res.” Aquinas, “Sententia Libri Ethicorum, Libro Iii Lectione Xiv Ad Librum V.” [73691] *Sententia Ethic.*, lib. 5 l. 9 n. 10. *Sent. Eth.*, V, 9, to Aristotle, V, 5; 1133b13-4. Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 237.

¹²³ Baeck says that in Aquinas [probably in the *Summa Theologica*, although there is no reference] “The prince also has the capacity to fix the value course of money, and of seigniorage, expressed by the principle *valor impositus*.” And, in relation to the discussion of just price of the *Summa Theologica* (ST 2a, 2aw), Baeck repeats that “Since money expresses the price of commodities, the determination of its measuring capacity (*mensura*) belongs to the prince: *valor impositus*.” Baeck, *The Mediterranean Tradition in Economic Thought.*, p. 160. That seems to be also the claim of Lapidus when he points that in the commentary to the *Politics*: “Money, Aquinas explained, ‘will be of price nil if the King or the community decides that it is worthless’.” Lapidus, “Metal, Money, and the Prince: John Buridan and Nicholas Oresme after Thomas Aquinas.”, p. 27. Again what is under question in that sentence is the actual decision of using money not of changing its value.

¹²⁴ “The Philosopher names regnative prudence after the principal act of a king which is to make laws;” Aquinas, *Summa Theologica.*, Part II-II (Secunda Secundae), Q. 50, Art. 1. Available in the web: <http://www.stjamescatholic.org/summa/SS/SSQ50OUTP1> (05/01/2008); Monroe also commented that in Aquinas’ commentary of the *Ethics*, *nomos* is rendered as *lex*, taken as statute law, which source was the prince. Monroe, *Monetary Thought before Adam Smith.*, p. 19.

Ethics, and then, in the *Summa Theologica*, the section which is said to grant such a right to the prince, merely states that:

*The measures of saleable commodities must be different in different places, on account of the difference of supply: because where there is greater abundance, the measures have to be larger. However, in each place those who govern the state must determine the just measures of saleable things, with due consideration for the conditions of place and time. Hence it is not lawful to disregard such measures as are established by public authority or custom.*¹²⁵

Aquinas is referring to the system of measures established and regulated by the authorities in each place, calling indeed to respect them. Some sections of his *Summa Theologica* also offer key statements about the need to respect the quality of substances in exchanges, both in general but also for gold and silver. Indeed, Aquinas, speaking about the three kinds of faults that may be found in exchanges - relating to substance, quantity or quality – used metals to offer an example about a possible fraud in substance, placing special emphasis on defective “mixed” substances:

Hence we find it written against certain people (Isaiah 1:22), “Thy silver is turned into dross, thy wine is mingled with water”: because that which is mixed is defective in its substance.”¹²⁶

Emphasis that brings to mind a similar stand by Cassiodorus: “the people must have reliable weights and measures, since everything is confused if frauds and purity mingle;”¹²⁷ And that is reflected as well in Aquinas’ attack against alchemy’s counterfeiting gold and silver.¹²⁸

¹²⁵ “The measures of saleable commodities must need be different in different places, on account of the difference of supply: because where there is greater abundance, the measures are wont to be larger. However, in each place those who govern the state must determine the just measures of things saleable, with due consideration for the conditions of place and time. Hence it is not lawful to disregard such measures as are established by public authority or custom.” Aquinas, *Summa Theologica*., Part II-II (Secunda Secundae), Q. 77, Art. 2.

¹²⁶ Ibid., Part II-II (Secunda Secundae), Q. 77, Art. 2.

¹²⁷ In the letter “King Theodoric to the Illustrious Patrician Boethius”, indeed Cassiodorus narrates the complaints servants raised when paid with coins that were not of “full weight,” commenting of the need to keep the purity of the coin and respect the set equivalences among coins. “Therefore, your wisdom, trained by learned texts, is to expel this criminal falsehood from the company of truth, so that no one shall be tempted to diminish that purity.” See Cassiodorus, *The Variae of Magnus Aurelius Cassiodorus Senator ... : Being Documents of the Kingdom of the Ostrogoths in Italy ... / Uniform Title: Variae. English.*, pp. 12-14.

¹²⁸ Aquinas attacked alchemists’ works, objecting the selling of silver or gold produced by some chemical process, the counterfeit metal, instead of the real metal. Aquinas, *Summa Theologica*., Part II-II (Secunda Secundae), Q. 77, Art. 2. This kind of denial was common as well among Islamic scholars, as al-Ghazālī, in particular.

To grant arbitrary power to the prince in monetary matters also seems not to match Aquinas' political conceptions.¹²⁹ Moreover, in Aquinas the prince acts finally in people's steads, which opened the door to later developments about the right of the community over the prince.¹³⁰

Aquinas, in his commentary to the *Politics*, considered *obolostatica* as "instituting coin in excess," which, as Langholm states, could be a way of describing debasement.¹³¹ In the process of reinterpreting Aristotelian types of *pecunaria* or *chrematistiké* – *campsonia*, *obolostatica*, and *tokos* – that Langholm also examined, Guido Vernani's commentary on the *Politics*, written between 1271 and 1277, associated *obolostatica* directly with debasement, the manipulation of the value of money:

"(...) as when some king or prince cause money to be fabricated and decrees that a coin should be worth more than it ought to."¹³²

In contrast, the questions on the *Politics* in the Bologna collection stated that money is not considered to be true wealth because its value is susceptible to alteration at will.¹³³ As in Aquinas, the reference to value is clear, however, this time it seems to refer to face or nominal value.¹³⁴ However, it need not necessarily refer to the prince's will but may refer also to the community's will or to the will of the one who institutes money. According to Langholm, it turns out that the only scholar of the period who granted such a power to the prince was

¹²⁹ According to Ullman, in his theory of the State, Aquinas used the concept *regimen politicum* in contrast with *regimen regale*, which means that the ruler is bounded by the laws instead of having absolute power over them, as in the latter case. "*Politicum autem regimen est, quando ille qui praeest, haet potestatem coarctatam secundum aliquas leges civitatis.*" I *Pol.*, lect. I. Quoted in Ullmann, *Principles of Government and Politics in the Middle Ages* / Walter Ullmann., 254.

¹³⁰ "Now a thing can be adjusted to a man in two ways: first by its very nature, as when a man gives so much that he may receive equal value in return, and this is called "natural right." In another way a thing is adjusted or commensurated to another person, by agreement, or by common consent, when, to wit, a man deems himself satisfied, if he receive so much. This can be done in two ways: first by private agreement, as that which is confirmed by an agreement between private individuals; secondly, by public agreement, as when the whole community agrees that something should be deemed as though it were adjusted and commensurated to another person, or when this is decreed by the prince who is placed over the people, and acts in its stead, and this is called "positive right." Aquinas, *Summa Theologica.*, II-II, Q. 57, Art. 2.

¹³¹ Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 237.

¹³² Venice BMarc lat. VI. 94, f.66ra; quoted in *Ibid.*, p. 402.

¹³³ "a hoard of money is not true wealth because the value of money is susceptible to alteration at will." Bologna BU 1625, ff.63rb-vs; cp. Paris BN lat.16089, f.281ra. *Ibid.*, p. 401.

¹³⁴ It appears in the argument against hoarding money. Money should not be hoarded because it is not true wealth, since its value may be altered at will. Bologna BU 1625, ff.63rb-va; cp. Paris BN lat. 16089, f.281ra. *Ibid.*, p. 401.

Aquinas' disciple Remigio of Florence (d. 1319), but it seems that he had little if any influence on later scholars.¹³⁵

A definite call for the stability of the value of money, that could lead also, as Langholm pointed out, to a critique against debasement, may be found in Henry of Ghent (d. 1293). As we saw, in a *Quodlibet* of 1281/2, composed in Paris, Henry of Ghent elaborated on money changing.¹³⁶ Following on from Aristotle, Albert and Aquinas, he also observed the need for a certain permanence in the value of money for it to be used as a unit of measure.¹³⁷ We noted as well that Henry of Ghent had made one of the first theoretical distinctions between nominal (*pretium*) and intrinsic value of money.¹³⁸ Then, he observed how one may differ from the other, in what Langholm says is an allusion to debasement but it could be as well a reference to the king's devaluation of coins related to the unit of account.¹³⁹ Nevertheless, in Henry of Ghent there is a certain tendency to favour the intrinsic value as a criterion to set the value of money when those kind of "unjust" devaluations have taken place, or when one or the two of the coins exchanged are not "current" (or in circulation). They must then be exchanged as commodities, that is, according to their intrinsic value.¹⁴⁰

c. First reactions against debasement and the tyrant in money matters: Giles of Rome, Tolomeo di Lucca and Henry of Friemar

In the *De regimine principum* by Giles of Rome (1243-1316), written about 1277-9, and dedicated to the young Prince Philip, who would later become King Philip IV of France, there were already some explicit warnings against royal involvement in monetary matters.¹⁴¹ According to Langholm, following from Vernani's new interpretation of *obolostatica*, Giles

¹³⁵ In *De misericordia*. In Langholm's opinion, Remigio of Florence was the only "pure nominalist." Ibid., pp. 461, 468 & 470.

¹³⁶ *Quodlibet* question about money-changing (*campdoria*); *Quodl.* VI, 22 (1281/2): *Utrum commutatio campdoria sit licita*; Henry of Ghent, *Opera*, X; quoted in Ibid., p. 254.

¹³⁷ Langholm does not give Henry of Ghent's concrete words nor the text where he exposed it but simply says that the latter conceived money could be a value measure "as long as, that is, as its precision as a measure can be to some extent relied upon, i. e., as long as the values of coins remain fairly stable." Ibid., p. 268.

¹³⁸ "It follows, that if in itself it has substance in weight and form in so far as it is money it nevertheless has a currency which it possesses on account of its price, not its substance, so that by a small price in money the value of things in exchange are equalize." *Quodl.* VI, 22; pp. 207-08; quoted in Ibid., p. 267.

¹³⁹ [It may happen that money] "is worth more in weight than the price put on it, as when the king has set the price of sterlings at less than what is just and otherwise does not permit them to be used as money in his kingdom." *Quodl.* VI, 22; p. 209; quoted in Ibid., p. 270.

¹⁴⁰ "Then it does not have the nature of a medium or a price but rather of an extreme and a thing to be evaluated, and may be lawfully sold at the just price, and he who buys it may by his industry bring it to a place where it is current and put it to use at a higher price." *Quodl.* VI, 22; p. 210; quoted in Ibid., p. 270.

¹⁴¹ Truman, "Spanish Treatises on Government, Society and Religion in the Time of Philip II: The 'De Regimine Principum' and Associated Traditions.", pp. 18-19; see Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 377.

of Rome declares that the king should not “stoop” (as merchants do) to participate in *obolostatica*, which he defined as the art of melting down heavier coins, making precious metal objects with them and keeping lighter coins as money;¹⁴² hence, a new step towards identifying it with debasement. Siding with the Pope in his conflict with Philip IV, later, in *De ecclesiastica potestate* (1301), Giles of Rome, following St. Augustine, ascribed unlimited power to the Pope in relation to setting “weight, measure and number” for all things.¹⁴³ Consequently, it would be difficult to justify on those grounds that the king manipulated the value or rate of money at will, especially considering that the sign stamped on a coin determined both “weight and value.”¹⁴⁴ Giles of Rome comes to interpret the idea that money, as convention, may be changed and made useless, but in the sense of whether or not it is legal tender (the official coin to circulate in a place), not in value.¹⁴⁵ In *De regimine principum*, he had also criticized those kings who focus on accumulating money, saying that they behaved as tyrants.¹⁴⁶ That argument which, according to Langholm, alludes to Aristotle’s definition of a tyrant as the ruler who places his private interest over the common good, would be the basis for fourteenth-century scholars’ critiques comparing those kings who debased money with tyrants.¹⁴⁷

It seems that the young prince did not read or perhaps disregarded the advice that Giles of Rome offered him in *De regimine principum*. In the midst of his war against England and its consequent financial costs, but banned by Pope Boniface VIII from taxing the French clergy, Philippe Le Bel (Philip IV, 1285-1314) resorted, as noted, to significant debasements of the currency to cover those costs, thus becoming nicknamed “le faux-monnayeur.”¹⁴⁸ Philip

¹⁴² *De regimine principum* (II, iii, 10); again Langholm does not quote the exact phrase from Giles of Rome; Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, pp. 386-87.

¹⁴³ “Or, according to the other interpretation [of Augustine] he orders all things in number, weight and measure in that he alone, who is number without number, weight without limit and measure without measure (because his own power is without limit of number, weight and measure) disposes all things.” Giles of Rome, *De ecclesiastica potestate* (trans. R. W. Dyson, Woodbridge, 1986), part 3, chapter 12, p. 203; cited in Wood, *Medieval Economic Thought.*, pp. 91-92.

¹⁴⁴ Langholm commenting on the *De regimine principum* (book II, part iii, chapter 9); Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 385.

¹⁴⁵ Gold and silver are natural metals but artificial riches because first, their purpose is to supply for natural riches, which are not the main purpose of life; second, because they are a human institution and hence, “if men change their minds as to their use, they would be worth nothing;” Langholm’s comment; it is not clear whether Giles of Rome used the words “human institution” to refer to money or if it is Langholm’s interpretation, who later gives the reference from *De regimine principum* (I, i, 7); *Ibid.*, pp. 385-86.

¹⁴⁶ *De regimine principum* (book I, part i, chapter 7); cited in *Ibid.*, p. 386.

¹⁴⁷ “because they replenish their treasuries by debasing the currency.” *Ibid.*, p. 386.

¹⁴⁸ Sarton, *Introduction to the History of Science (3 Vols.)*. (1948), vol. III, part II, p. 1283; Langholm, 1992, p. 379.

IV started debasing money to finance his war against England in 1295, and, then, again in 1311, to finance the war against Flanders.¹⁴⁹

The first to react against the debasement by the French monarch in 1303-04 were the bishops, who stated that any action related to coinage had to receive approval of both bishops and barons.¹⁵⁰ However, theoretical arguments against the debasement of money had already appeared in *De regimine principum*, composed by Tolomeo di Lucca in 1300, finishing his master Aquina's *De regno*.¹⁵¹ In the thirteenth chapter, on each nation's currency, di Lucca, from Aristotle's *Ethics* but also quoting S. Agustín and S. Isidoro, explains how money is a fixed and agreed measure that prevents the possibility of fraud, the image printed on it being almost divine.¹⁵² Di Lucca adds that even if the king has the right and monopoly to coinage and even to seigniorage, he should not increase or diminish its tolls, weight, and type or alloy because those changes produce prejudice to the people. Altering money is like falsifying weights and measures.¹⁵³ It then affects also negatively the performance of credit and trade.¹⁵⁴ Granting, as did Giles of Rome, the prerogative to define weights and measures finally to the papacy, di Lucca makes a reference to Pope Innocent who reproved the king of Aragon for having altered money, and absolving his son of the oath to maintain the debased coin and even ordering him to re-establish the old alloy and rate.¹⁵⁵

¹⁴⁹ Data about the volume and aspects of the debasements in Spufford, *Money and Its Use in Medieval Europe*., pp. 301-303.

¹⁵⁰ *Declaratio Prelatorum*. Studies by F. Lot, R. Fawtier, R. Strayed and C. H. Taylor, cited in Ibid., p. 303.

¹⁵¹ The sections of the *De regimine principum ad regem Cypri* corresponding to Aquinas' authorship are chapter I-IV. Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 203. Langholm later says it dates to 1300 (p. 455).

¹⁵² "Unde moneta dicitur, quia monet mentem, ne fraus inter homines, cum sit mensura debita, committatur, ut imago Caesaris sit in homine quasi imago divina, sicut Augustinus exponit pertractans dictam materiam." In the 19th century Spanish translation: "Se la llama moneda (palabra derivada de moneo) como si contuviera en sí una amonestación o advertencia para que no se comentan fraudes, siendo como es medida fija y convenida que recuerda que la imagen de Cesar es como la imagen de Dios, según dice S. Agustín al tratar de esta materia." Aquinas, *El Gobierno Monárquico: O Sea El Libro De Regimine Principum Escrito Por Santo Tomás De Aquino.*, Chapter 13, p. 168.

¹⁵³ "In qua quidem, etsi liceat suum jus exigere in cudendo numisma, moderatus tamen debet esse princeps quicumque vel rex sive in mutando, sive in diminuendo pondus, vel metallum, quia hoc cedit in detrimentum populi, cum sit rerum mensura, sicut supradictum est: unde tantum est mutare monetam, sive numisma quantum stateram sive quodcumque pondus." Ibid., Chapter 13, p. 169. The English translation given by Langholm goes: "any prince or king ought to be moderate in altering or diminishing weight or metal, because this results in harm to the people since it is a measure of things, and therefore to alter money or coin amounts to the same thing as altering a pair of scales or any kind of weight." Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 457.

¹⁵⁴ "Jura etiam in numismatibus favent mutuis et pactionibus quibuscumque. Mandat enim solvi mutual et pacta servari juxta illius temporis numisma in omni mensura qualitatis et quantitatis." Aquinas, *El Gobierno Monárquico: O Sea El Libro De Regimine Principum Escrito Por Santo Tomás De Aquino.*, p. 170.

¹⁵⁵ "ley y tasa;" Ibid., Chapter 13, pp. 169-170.

Also writing from Paris, between 1299 and 1315, Henry of Friemar (ca. 1245-1340?) made more explicit some questions on money developed by Albert and Aquinas.¹⁵⁶ In his commentary on Aristotle's *Ethics*, he followed up Aquinas' theory of value, or 'theory of double measure,' where the true and natural measure of value is human need (*indigentia humana*), conceived of as aggregate need, as in the Paris Averroist commentaries, while money is a measure instituted by law and human appointment "which established and determined it."¹⁵⁷ This statement, which could justify the prince's control over the value of money is however qualified in other sections, since, among the properties Friemar considered money must fulfill was to be impressed with the stamp of some prince, but also to be of "due weight" and "of a precious material, like gold and silver."¹⁵⁸ As Langholm states, these assertions are meant to ensure the stability of the value of the coin.

However, within the context of debasements in which he writes, Henry of Friemar acknowledges that money does not always remain of the same value, not because of changes in the value of its material, which he still seems to consider quite stable, but due to changes in the will of the sovereign, "who instituted it," which is its civil value (*valorem civilem*).¹⁵⁹ Having said this, Friemar repeats again the Aristotelian sentence that money, among other things, remains the most stable, "having been made to remain of the same value by the motive for its institution;" and reiterating that this motive "demands a certain permanence and invariability."¹⁶⁰ If the warning, although mild, against debasement was not clear enough, Friemar, in his tract to the Decalogue, includes the "falsification by diminishing the weight and purity of coins" among the catalogue of economic frauds.¹⁶¹ This inclusion, although, as in other authors, may refer simply to the individual behaviour of the economic agent, but in the context in which it is raised and in relation to his other texts, it clearly points to the political authorities.

d. Debasement and inflation: Dubois and Durant the Younger

¹⁵⁶ He knew both Albert's commentaries on the *Ethics*, although "patterned his work on the first one." Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 545.

¹⁵⁷ Henry of Friemar's manuscript commentary on Aristotle's *Ethics*: Basel UB F.I.14, ff.2r-244r; f134va, 134vb. and 134ra; quoted in Ibid., pp. 545-46.

¹⁵⁸ "In order a fixed price might be set on commodities by means of it;" F. 135rb-va. Ibid., p. 546.

¹⁵⁹ "(...) the value of money does not depend only on the nobility of its material but also on the will of the sovereign, who instituted it, and therefore by the fancy of his will can change the civil value (*valorem civilem*) of money." F. 135ra. Quoted in Ibid., pp. 546-47.

¹⁶⁰ F. 135ra. Quoted in Ibid., p. 547.

¹⁶¹ Henry of Friemar's *Tractatus de decem praeceptis* discusses economic frauds in relation to the seventh commandment. Cologne's edition, 1495; F.J.v.Ibid., p. 547.

In the same context of Philip IV's debasements, two other figures mentioned by Monroe and Wood but not Langholm, stand out for their particular critiques against the debasement of money and, moreover, for exposing the consequences of debasement on inflation: Pierre Dubois and William Durant the Younger, the former also a student of Aquinas.¹⁶²

In two memoirs addressed to Philip IV in 1308, his adviser and lawyer in the diocese of Coutances, Pierre Dubois (c. 1250-1321), complained of the pervasive consequences the debasement of money brought about; explaining in the second that it is even of detriment to the monarch in the long run.¹⁶³ According to Monroe and Brants, Dubois explains that while the revenues of nobles have not increased, prices have doubled.¹⁶⁴ In the second memoir, Dubois even explains this aspect, since it is by making exports cheaper (making it profitable to send out goods rather than money) that debasement "leads to a greater demand for goods, and hence to higher prices."¹⁶⁵

Another factor mentioned by Dubois is that "foreigners had regard only for the actual amount of gold and silver in the coins."¹⁶⁶ Several aspects are of interest in this sentence. In addition to the reference to the intrinsic value of money being the criteria used by those foreigners, as Abbeville had already pointed out, or "foreigners" being those dealing with it as any other commodity, it gives evidence that Dubois grasped the concurrence of Gresham's law as a result of the fall in the intrinsic value of the coin, good coins disappearing from circulation.

Only three years later, in 1311, William Durant the Younger (c. 1266-1330), Bishop of Mende (1296-1330), condemned those rulers who "debilitate the coinage," arguing that it was a fraud to the commonwealth and using the same argument that it disrespected legitimate

¹⁶² Sarton already pointed out that it was Pierre Dubois the first person in the Latin west to raise warnings to the danger of money depreciation and inflation. Sarton, *Introduction to the History of Science (3 Vols.)*. (1947), vol. III, part I, p. 318.

¹⁶³ Monroe, *Monetary Thought before Adam Smith.*, p. 20. Pierre Dubois or du Bois, Petrus de Bosco, from Normandy, who Sarton qualifies as "French publicist and reformer" that attended to the lectures of Aquinas and Siger of Brabant in the University of Paris. Dubois wrote *De recuperatione Terrae Sanctae*, where the crusade is the pretext for different reforms, which include the teaching of Oriental languages as part of the new curricula of public education. Sarton, *Introduction to the History of Science (3 Vols.)*. (1947), vol. III, part I, pp. 407-412.

¹⁶⁴ Monroe follows Brants to explain that Dubois affirms that: "debasement had cause losses to his subjects with which the losses of war could not be compared;" adding later that: "The revenues of the nobles and such classes had not increase (...) while the things they had to buy were double in price." Victor Brants, *Esquisse des Théories Économiques Professées par les Écrivains des XIII^e et XIV^e Siècles* (Louvain: 1895), pp. 188-89; quoted in Monroe, *Monetary Thought before Adam Smith.*, pp. 18-20.

¹⁶⁵ Laundry, *Mutations des Monnaies dans l'Ancienne France de Philippe le Bel à Charles VII* (Paris: 1910), p. 208 n.; quoted in *Ibid.*, p. 21.

¹⁶⁶ *Ibid.*, p. 18.

weights and measures.¹⁶⁷ What is of special relevance in Durant's indictment is that he also realized the consequences that debasement of the coin had on price increases.¹⁶⁸ The practical application of his condemnation was however modest, since, according to Fasolt's interpretation of his political stance, Durant's final choice was simply to beg the ruler to obey the law rather than require him to.¹⁶⁹

e. The debaser as tyrant: Pierre de la Palu and Guido Terreni

Among those direct predecessors of Buridan and Oresme's in Langholm's depiction, the first, among Latin scholastics, to bring up the idea that the prince who debased money for his own utility and to the detriment of his subjects is a tyrant, was Pierre de la Palu (1275/80-1342). In Pierre de la Palu's commentary on the *Sentences* of Peter Lombard, written in the later period of Philip IV's debasement, 1310-15, the debasement of money should take place only if it is for the kingdom's needs or because other resources result in more harm to his subjects.¹⁷⁰ Linking with Aristotle's conception of tyrant and following from Giles of Rome's statement on the issue, Pierre de la Palu wrote that if the king institutes money for his own utility and to the detriment of his subjects, he is a tyrant rather than a king.¹⁷¹ The idea of the debaser monarch being a tyrant had been "suggested" earlier in legal sources, according to Langholm.¹⁷² De la Palu's is a pure metalist conception of money in which the value of money, defined as intrinsic value, cannot vary: it is indeed "incapable of natural variation" and, taking to the extreme Aristotle's claim for its stability, money's worth, unlike other things, is always the same.¹⁷³

¹⁶⁷ Wood, *Medieval Economic Thought*, p. 102.

¹⁶⁸ [The rules that debilitate the coinage] "By so doing they cause and encourage a universal rise in prices and similar kinds of fraud, endangering their souls and the soul of others. This is why there exists unequal weights, coins that are not worth their value, all sorts of sophisticated and fraudulent practices... and why all subjects, the great, the middling, and the small, are being plundered." Wood quotes in this respect the study by Constantin Fasolt about the political thought of William Durant the Younger (Cambridge, 1991, pp. 230-31), however she does not clarify from which text by Durant the section is taken. Ibid., pp. 102-03. It must be in either the *Tractatus Minor* or in the *Tractatus Maior* written while and for the council of Vienne, in 1311, the later including a section about "how to limit the power of superiors". Constantin Fasolt, "William Durant the Younger and Conciliar Theory," *Journal of the History of Ideas* 58, no. 3 (1997), pp. 385 and 394.

¹⁶⁹ "Durant almost admitted as much, that there was not much else to do than to relinquish contemporary affairs to the power of a ruler whom one could beg, but not require, to obey the law because the decision what is law could no longer be derived from any other source than from that ruler's own discretion." Fasolt, "William Durant the Younger and Conciliar Theory," p. 395.

¹⁷⁰ Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350*, p. 490.

¹⁷¹ From Peter de la Palu's *Comm. Sent.*, III, 33, 4, 5: f. 207va; cited in Ibid., p. 490.

¹⁷² Langholm refers to Andreas of Isernia (d. 1316), *In usus feudorum commentaria*, to 2, 56, *Moneta*; ed. Naples, 1571, f.295rb-va. Ibid., p. 505.

¹⁷³ *Comm. Sent.*, III, 37, 2, 2: ff. 231vb-232ra; cited in Ibid., p. 490.

Almost at the same time, Guido Terreni (ca. 1265-1342) also associated the monarch who debased the coin with the tyrant, as far as this is not for the common good.¹⁷⁴ He developed these conceptions in his commentary on the *Ethics*, composed during his stay in Paris, probably in 1313.¹⁷⁵ In this text, Terreni offers an interesting solution for the dilemma of the value of money not being always the same, while its permanence is necessary to serve as a unit of measure in exchanges: on the one hand, Terreni relates the stable character of money to the physical durability of metals, while, on the other hand, the fluctuations it may suffer relate to debasement. Those fluctuations or debasements are those upon which both the prince and the community agree for the benefit of the common good. In Aristotle's statement "as it is in our power to alter and make it useless," Terreni, like Aquinas, understood that "our" referred to both the prince and the community. The section reads:

*But money persists in its value as long as it pleases the prince or the community. But I say 'as long as it pleases the prince or the community' because, as the Philosopher says here and in Politics, I, it is in our power to make money useless, for as it was invented by the consensus of the community or the prince for the use in the exchange since it is to the good of the community that commodities should be equalized better, therefore it can be altered by the will of the prince and the community as long as it yields to the common good, for if this were to be done against the common good and for the good of the prince and so to harm the citizens, it would be unjust and such a prince would be a tyrant.*¹⁷⁶

For him the convention that creates money is the "consensus of the community or the prince," which means that he was calling for Philip IV to listen to the demands of the nobility and clergy for him to stop debasing the coin. The consensus between prince and community is achieved if alteration of the value of money "yields to the common good." If the prince debases the coin and damages the common good, then he is a tyrant. Both the consensus of the community and the criterion of the common good will set the basis for Buridan and Oresme's conceptions about money and its management.

In the *Expositio Decreti*, a later work written about 1330, Terreni seems to confirm his claim against debasement, since, following up similar statements by Abbeville and Frieman,

¹⁷⁴ Carmelite, Aristotelian and Thomist, followed up from the Paris Averroist commentary tradition. Ibid., pp. 491-92.

¹⁷⁵ Composed during his stay in Paris from 1290 to 1318, 1313 according to Gauthier (1970, p. 134); cited in Ibid., p. 504.

¹⁷⁶ *Comm. Eth.*, V, 11,f.42rb (not edited, Langholm uses the extant three manuscripts), quoted in Ibid., pp. 504-505.

he states that the mark stamped on the coin was a guarantee of its value and weight.¹⁷⁷ In relation to this, and continuing the more tolerant trend towards money-changing initiated by Vernani, Guido Terreni will also adopt a “realistic attitude,” considering that exchanges of money for money should take place according to the “law of equality between what is given and received in exchange,” which also reminds the former’s commandment that in changes with money “equal must be given for equal.”¹⁷⁸

Another interesting aspect is that, like Aquinas, Terreni seems to grasp the idea of the value of money as purchasing power, that is, in relation to other goods. As in Aquinas and Paris Averroists, Terreni considers two measures of value, money (*pecunia*), the artificial measure, and *indigentia*, the natural and principal measure. Money is not the principal measure because its purchasing power changes with time: “‘money staying the same’ (*stance eadem pecunia*), the same thing may vary in value depending on demand.”¹⁷⁹

The link between these later authors and the more elaborate indictments against the practice of debasement by Buridan and Oresme will come from Odonis, as Langholm attested. Gerald Odonis (c.1290-c.1347) in his commentary on the *Ethics* drops Terreni’s idea of money as resulting from the consensus of community and prince, to return to Aquinas’ interpretation of money as instituted by law.¹⁸⁰ About debasement, he takes also a much more moderate tone, simply acknowledging some of its negative consequences. The reference to value in the Aristotelian section states that money *exists not by nature but by law* (*nomos*) *as it is in our power to change it and make it useless*, with Odonis commenting that: “it is ‘in our power’ to decrease its value in addition to rendering it totally useless.”¹⁸¹ That he is referring to debasement is clarified in his treatise on economics, where he explains the costs that it has for merchants, who have to accept “bad money” in sales with deferred payment, since “altered money” came into circulation during the time the payment was delayed.¹⁸² His appraisal of the purchasing power of money is, however, clearer than Terreni’s. Also distinguishing two ways in which the value of money may decrease, Odonis first comments that it may do so by imposition of the monarch, but, secondly, states as well that the value of money may decline

¹⁷⁷ *Expos. Decret.*, II, 14, 3; f.107va.; quoted in *Ibid.*, p. 503.

¹⁷⁸ In Terreni’s commentary on the *Ethics*; see *Ibid.*, p. 505, in relation to note above.

¹⁷⁹ *Comm. Eth.*, V, 10; f. 42a; quoted in Langholm’s. Terreni combines the idea of the aggregate *indigentia* of the “Averroists” with the conception of *raritas* developed from Olivi. *Ibid.*, pp. 502 & 504.

¹⁸⁰ *Comm. Eth.*, V, 9; f.X₅ra; cited in *Ibid.*, p. 522.

¹⁸¹ *Comm. Eth.*, V, 9; f.X₅ra; cited in *Ibid.*, p. 522.

¹⁸² *Tract.*, Q. 8; f-87r; quoted in *Ibid.*, p. 522.

due to an increase in the value of commodities, because supply is insufficient or demand is excessive.¹⁸³

f. Buridan and Oresme, the community's right to coinage

The choice of the local or provincial nobility in France was however not so restrained as Durant's stance but was more in line with de la Palu. From 1314-1315, general revolts spread in France, and calmed down only when Philip IV's successor, Louis X of France (1314-1316), promised to go back to a policy of sound money.¹⁸⁴ As Spufford explained, from then until the beginning of the Hundred Years War, kings in France searched the advice of the three estates and found it convenient, although not obligatory, to consult a national assembly over changes in coinage.¹⁸⁵

It is then in the Hundred Years War that Philip VI again engaged in considerable debasement of the currency to finance the war. From 1336 to 1342, a total of seven consecutive reductions in the weight and silver content of coins were recorded.¹⁸⁶ Interrupted only for four years, due to the agreement in 1343 with an assembly of estates to introduce a sales-tax in return for minting good money, Philip VI turned again to more debasements after a preamble in 1346 that granted him and only him all authority regarding coinage.¹⁸⁷ His successor, Jean II (1350-1364) continued the same policy. As a result, while in 1336 the silver coin, *grosso tournois*, contained 96% silver, in 1355 it contained only 20%.¹⁸⁸

By then, in Italy, both legist and canonist raised their voices against these new debasements. Bartolo de Sassoferrato (1313-75) advocated for money with a just weight (*justum pondus*) and made of good materials (*species proba*).¹⁸⁹

¹⁸³ "(...) first if the value of money is reduced by the sovereign, second accidentally if the value of commodities increases because they become scarce either as the result of a failure of the goods themselves or of a greater demand for them." *Comm. Eth.*, V, 9; f.X₅ra; cited in *Ibid.*, p. 523.

¹⁸⁴ See A. Artonne, *Le Moivement de 1314 et les chartes provinciales de 1315* (Paris, 1912), cited in Spufford, *Money and Its Use in Medieval Europe.*, p. 303.

¹⁸⁵ *Ibid.*, p. 303.

¹⁸⁶ Measured by the amount of coins minted from a mark weight of silver (a mark of *argent-le-roi*), Spufford recounts that if in 1336 were minted a total of 60 *grossi tournois* (the silver coin in France by then), in June 1342 a total of 240 *grossi* were struck with that same amount of silver. *Ibid.*, p. 303. As a result, if the *grossi* in 1336 had a 96% of silver and five years and a half later had half the weight, as Spufford states, that means that in 1342 the French silver coin had only a 48% of silver.

¹⁸⁷ Ordinance of 16 January 1346, in *Ordonnances*, II, 254; quoted in *Ibid.*, p. 303.

¹⁸⁸ In the ordinance of 9 November 1355, 480 *grossi* were struck out of a mark of silver. Lafaurie, *Les Monnaies des rois de France*, no. 303d., p. 53, cited in *Ibid.*, p. 303.

¹⁸⁹ Paridisi, 1983; and Dupuy, 1989, quoted in Baeck, *The Mediterranean Tradition in Economic Thought.*, p. 170.

In France, the first to complain were again the clergymen. In 1354, the abbot of Saint-Rémi at Rheims complained that the monastery, formerly very rich, had been impoverished by weakening of the money in which they received their incomes.¹⁹⁰ A year later, 1355, responding to the royal preamble and the arguments of the king's lawyers, Nicholas Oresme, from the college of Navarra in the University of Paris, writes the shorter initial version of the *Traietie des Monnoies*, at a time when both French nobility and upper clergy were introducing pressure on the king to stand for a strong money policy. When he writes the second, longer Latin version of the treatise, *De Moneta*, about three years later, that pressure group dominated the agenda and Oresme's ideas became the "new orthodoxy" on which the new monetary policy of the following French, as well as Flemish, kings was to be based until the end of the century.¹⁹¹ Oresme would leave the university then to participate in the monetary reform of 1360, which returned to the strong coin policy, and started his ecclesiastic career in 1361.¹⁹² The main lines of that new orthodoxy were that the prince had to respect the alloy and weight of coins, in whose settings the community had a word as legitimate holder of the right to coinage; hence, the prince had to consult the community before any kind of change in its value.¹⁹³

The views on money of Nicholas Oresme (1320-1382), the "practical" man, and Jean Buridan (1295-1358),¹⁹⁴ the academic scholar and Oresme's master, have been extensively examined in the literature, as well as their personal and intellectual relationship.¹⁹⁵ As Spufford comments, their works represent a more refined theoretical explanation about the right to coinage, consequential to the new wave of debasements and in parallel or in tune with the revolts and further pressures on the part of the nobility and clergy that those debasements

¹⁹⁰ From Varin, *Archives administratives de la ville de Reims*, quoted in Spufford, *Money and Its Use in Medieval Europe*, p. 300.

¹⁹¹ For the different protagonists and events see Ibid., pp. 300-301.

¹⁹² Dupuy, "Présentation.", p. 40. Becoming then Bishop of Lisieux, his "reward" as a spokesman of the new government, as Spufford suggests; Spufford, *Money and Its Use in Medieval Europe*, p. 301.

¹⁹³ "le prince ne peut la réaliser que sous son contrôle." Urvoy, "Les Vues D'averroès Sur La Monnaie Comme Intermediaires Entre Celles D'aristote Et Celles Des Averroïstes Latins." P. 206.

¹⁹⁴ Born in Béthune, Artois, diocese of Arras, and rector of the University of Paris in 1328 and 1340; Sarton, *Introduction to the History of Science (3 Vols.)*. (1947), vol. III, part I, pp. 540-46.

¹⁹⁵ As an economist, Oresme was rediscovered by Wilhem Roscher in 1862 and then in 1865 L. Wolowski translated into French and published the manuscript of *Traité de l'origine, de la nature, du droit et de la mutation de la monnaie*. Langholm offered a deep analysis of their works in his work of 1983, and in his work of 1992 goes into detail into the analysis of their predecessors, as we have seen. So did Lapidus as well and on the relationship between master and disciple. See Lapidus, "Metal, Money, and the Prince: John Buridan and Nicholas Oresme after Thomas Aquinas."; Spufford analyzed and contextualized Oresme in the struggles between prince and nobility of mid fourteenth-century France; See Spufford, *Money and Its Use in Medieval Europe*, pp. 295-308. See also the edition and study by Dupuy, "Présentation."; see also synthesis in Wood, *Medieval Economic Thought*, pp. 104-107.

provoked.¹⁹⁶ And as Langholm proved, they mastered and completed earlier developments on the issue discussed by previous authors during the 14th century.¹⁹⁷ For the sake of this study, I will highlight only some points of their arguments that are of relevance to the discussion.

Based on Cassiodorus and Aristotle, Oresme states that money was invented for the general interest or common good (*bien commun*), as a medium of exchange, which is also defined later as the good of the community.¹⁹⁸ Gold and silver are the more appropriate materials from which to make those coins (bronze only when there is not enough silver).¹⁹⁹ Oresme's main innovation in this respect is to grant the prerogative to coinage to the community who names a public person or persons to coin money.²⁰⁰ The prince is thus that person who behaves as guardian of money, "*au nom de la communauté*", whose value needs to be stable to provide for future needs.²⁰¹ Money is not his (nor the emperor's) but belongs to all those in possession of natural wealth, for which money is a medium of exchange.²⁰²

As any other law of the community, that regarding money should be a firm law, one that does not change: "*le cours et le prix des monnaies dans un royaume doivent être pour ainsi dire une loi, un règlement ferme*".²⁰³ Oresme is however more concrete than merely referring to the common good, as do previous authors. Speaking about monetary manipulations in general (*mutation des monnaies*), such as changes in the circulation and price of coins (*cours et prix*), Oresme directly explains that manipulations cannot be carried out because that

¹⁹⁶ Spufford, *Money and Its Use in Medieval Europe*., p. 304.

¹⁹⁷ Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 505.

¹⁹⁸ Oresme and Buridan, *Traité Des Monnaies Et Autres Écrits Monétaires Du Xive Siècle (Jean Buridan, Bartole De Sassoferrato)*., pp. 49, 51 and 53.

¹⁹⁹ Ibid., pp. 49-50.

²⁰⁰ Ibid., p. 53.

²⁰¹ "*parce qu'autrement elle ne pourrait pouvoir par elle-même au futur besoin.*" Urvoy, "Les Vues D'averroès Sur La Monnaie Comme Intermediaires Entre Celles D'aristote Et Celles Des Averroïstes Latins."205.

²⁰² "*Quoique, pour l'utilité commune, il revienne au prince de mettre sa marque sur la pièce de monnaie, il n'est pas cependant le maître ou propriétaire de la monnaie qui a cours dans son Etat. Comme il ressort du premier chapitre, la monnaie est l'étalon de la permutation des richesses naturelles; elle est donc la possession de ceux auxquels appartiennent ces richesses.*" Oresme and Buridan, *Traité Des Monnaies Et Autres Écrits Monétaires Du Xive Siècle (Jean Buridan, Bartole De Sassoferrato)*., pp. 54 and 83. Hence, the community is now more clearly defined among those who have possessions.

²⁰³ In the fourth chapter of his treatise, Oresme praises those "wise men of that time [who] sagaciously though that transactions should be made of a fixed material and of definite weight, and that a figure should be stamped on it, in order to show officially to all the quality of the material and the fair weight of the coins, and to make it possible to know the value of money." Lapidus, "Metal, Money, and the Prince: John Buridan and Nicholas Oresme after Thomas Aquinas."p. 37; Oresme and Buridan, *Traité Des Monnaies Et Autres Écrits Monétaires Du Xive Siècle (Jean Buridan, Bartole De Sassoferrato)*., pp. 49-52 and 56; According to Monroe and Lapidus, Buridan did not grant the prince the right to establish coinage in the first stance, and, in minting new coins, he had to set their price in relation to the former money, hence to respect the metallic content of the coin. Monroe, *Monetary Thought before Adam Smith.*, p. 19; and Lapidus, "Metal, Money, and the Prince: John Buridan and Nicholas Oresme after Thomas Aquinas.", p. 29.

affects certain rents fixed in silver coin, and so, manipulations may only be introduced if strictly necessary or if done for the good of the whole community.²⁰⁴ Only later, in an explanation of each type of manipulation, are Oresme's arguments against manipulation based on the harm or injustice it brings to the whole community.²⁰⁵ Some of the harsher indictments appeared in relation to debasement of coins, or manipulation in the weight of coins and that of the alloy, which is the worst sort (*le pire*); that is, the type of manipulation that could apply to the king of France at that moment.²⁰⁶ Oresme repeats that the stamp on a coin, sometimes even portraying the name of God or depicting not only the figure of the prince but of the cross, signifies that its metallic content and alloy are authentic, so to change them is to falsify money:

« Si donc le prince, sous cette inscription, change la matière et le poids, il est considéré commettre subrepticement une imposture et un perjure, rendre un faux témoignage et aussi transgresser le commandement par lequel il est dit: 'Tu ne prendras pas le nom de ton Dieu en vain!' »²⁰⁷

In conclusion, none of the types of monetary manipulation, from the simpler to the more complex, should be made by sole will of the prince (*de la seule autorité du prince*), especially when he does so only for his own profit, which is not the action of a king but of a tyrant.²⁰⁸ Debasement is even worse than usury, since it is the third of the three forms of gain from money condemned by Aristotle (equivalent to *obolostatica*).²⁰⁹

Buridan argued as well that the prince can only debase money if it is for the common or public good, not his own good. However, the attitude towards the tyrant here differs slightly from that in Oresme. As Lapidus explains, Buridan's position was to promote the subject's control over the prince.²¹⁰ Theoretically, Oresme goes further by arguing that it is the community who has the right to modify the value of money. This right is a result of its

²⁰⁴ Oresme and Buridan, *Traité Des Monnaies Et Autres Écrits Monétaires Du Xive Siècle* (Jean Buridan, Bartole De Sassoferrato), p. 56.

²⁰⁵ Debasement of the figure (*du type de la monnaie*), chap. 9; of the ratio (*de la proportion*), chap. 10; of the appellation (*de l'appellation*), chap. 11; of the weight (*du poids*), chap. 12, and the material (*de la matière*), chap. 13; and combined debasement (*mutation complexe*) Lapidus, "Metal, Money, and the Prince: John Buridan and Nicholas Oresme after Thomas Aquinas.", p. 38. Oresme and Buridan, *Traité Des Monnaies Et Autres Écrits Monétaires Du Xive Siècle* (Jean Buridan, Bartole De Sassoferrato), pp. 57-67.

²⁰⁶ "Donc, si elle ne répondait pas vraiment au poids indiqué, on voit tout de suite qu'il y aurait là falsification très vile et tromperie frauduleuse. (...) Combien serait-il donc inique, combine serait-il donc détestable, surtout de la part d'un prince, de diminuer le poids sans changer la marque!" Oresme and Buridan, *Traité Des Monnaies Et Autres Écrits Monétaires Du Xive Siècle* (Jean Buridan, Bartole De Sassoferrato), pp. 63 and 65-66.

²⁰⁷ Ibid., p. 65.

²⁰⁸ Oresme quotes Aristotle here; Ibid., pp. 67-68.

²⁰⁹ Ibid., p. 70.

²¹⁰ Lapidus, "Metal, Money, and the Prince: John Buridan and Nicholas Oresme after Thomas Aquinas." p. 40.

property right.²¹¹ However, in terms of practical political consequences, Oresme does not dare to suggest, as does Buridan, that the people should depose the prince who “betrays the common good” (hence, also the one who debases money), although he does consider revolting against him.²¹²

Buridan emphasizes the political consequences of debasement, arguing that people lose confidence in the prince who debases money because he is taking decisions against the interest of the community.²¹³ Oresme, in contrast, makes a more extensive report of its economic consequences: first, impoverishment of the population; second, exodus of gold and silver and gold and silver coins abroad, where they are better paid (which will be called Gresham’s law); third, reduction of good products and natural wealth being imported from abroad, and a distortion of trade in general; and fourth, the uncertainty debasement introduces into calculating rent, salaries, pensions, etc., fixed in money, and the risks it entails for credits; harm to the civil community in general, in addition to speculation (on the part of the monopoly of money-changers).²¹⁴

In relation to the types of debasement that the authors classified, Oresme basically follows Buridan but includes a new type that clarifies this point: debasement in the ratio between coins. This kind of debasement, which refers more properly to a devaluation of one coin in respect to a coin of different metal, is of particular interest because it implies that Oresme is trying to set bi-metallic standards, as did Islamic jurisprudence: “*la monnaie d’or, il doit y avoir un rapport determine de valeur et de prix avec la monnaie d’argent (...) cette proportion doit suivre toutefois le rapport naturel qui rend l’or plus ou moins précieux relativement à l’argent.*”²¹⁵ This “natural relation” is the rate in bullion markets, which may change due to changes in the substance itself or in the markets (*cause réelle*). It is in those periods when a debasement of one coin is justified in order to adjust its exchange rate to the “natural relation” between metals.²¹⁶ However, Oresme adds that these changes rarely occur (“*ce qui se produit rarement, à vrai dire*”), which confirms that he still maintains the idea of

²¹¹ “and as protection against the prince itself” Ibid., p. 41. “Ownership to be equated with control of money.” Lapidus, “Metal, Money, and the Prince: John Buridan and Nicholas Oresme after Thomas Aquinas.”, p. 46.

²¹² Lapidus, “Metal, Money, and the Prince: John Buridan and Nicholas Oresme after Thomas Aquinas.”, p. 50.

²¹³ Urvoy, “Les Vues D’averroès Sur La Monnaie Comme Intermediaires Entre Celles D’aristote Et Celles Des Averroïstes Latins.”p. 205.

²¹⁴ Oresme and Buridan, *Traité Des Monnaies Et Autres Écrits Monétaires Du Xive Siècle (Jean Buridan, Bartole De Sassoferrato)*., pp. 75-78.

²¹⁵ Ibid., p. 59.

²¹⁶ “*Mais s’il n’y a pas ou peu de changement réel, cette mutation ne peut en aucune façon être permise au prince.*” Ibid., p. 59.

the stability of the value of gold and silver that from Xenophone and Aristotle spread in both the Islamic and Christian commentary tradition of the latter.

Another interesting aspect is that, in the chapter dedicated to the substance from which money is made, Oresme makes a direct connection between the available amount of each metal and the use of certain coins. Gold is the preferred metal, then silver, which serves better for smaller and frequent exchanges, and only when not enough silver is available, bronze.²¹⁷ A certain proportionality of the amount of metal in respect to the amount of goods is present in Oresme's explanation of the emergence of black money or petty change:

*Mais, quelquefois, dans une région, il n'y a pas assez d'argent pour ce faire, en proportion des richesses naturelles, et le faible portion d'argent qui devrait être donnée en bonne justice pour une livre de pain ou quelque chose comme cela serait même fort peu maniable par suite de son excessive petitesse. C'est pour-quoi la monnaie a été faite d'une moins bonne matière mêlée à de l'argent. Ce fut là l'origine de la monnaie noire qui est adaptée aux menues marchandises.*²¹⁸

However he then warns of the problems that producing money with this low alloy may entail, stating that if any change in alloy proportions must be done it should be in coins of lesser value.²¹⁹ Like Abbeville, he seems to be aware of or foresee the problems involved when too much black money circulates in moments of bullion scarcity, and also of the inherent problems of fraud and manipulation that using alloys in money may bring; a problematic that will become particularly acute at the end of the century, as we will see.²²⁰ Oresme, nevertheless, contends that if given the scarcity of money, a coin must be mixed with another base metal to put more coins in circulation, it would be better if it is not the gold coin, as mentioned, but, of coins in circulation, one of lesser value.

²¹⁷ "On a donc été amené à faire la pièce de monnaie d'une matière précieuse et rare, comme l'est l'or. Mais une telle matière doit être disponible en quantité appropriée. C'est pourquoi, là où l'or ne suffirait pas, la monnaie sera faite aussi d'argent, et là où ces deux métaux ne seraient ni suffisants ni même disponibles, on devra utiliser un autre métal pour la monnaie, en l'alliant ou non à ceux-ci. Ainsi le faisait-on autrefois de bronze." Ibid., p. 49.

²¹⁸ Ibid., p.51.

²¹⁹ "tout alliage de ce type est suspect en soi" since it is not possible to recognize the proportion of precious metals the coin contains in this way. "C'est pourquoi on ne doit faire d'alliage dans les monnaies que par suite de la nécessité déjà évoquée, et il faut le faire alors là où suspicion est moindre, ou moindre la tromperie suspectée: c'est dans le métal le moins précieux. Encore une fois, nul alliage de ce type ne doit être fait si ce n'est seulement pour le bien commun." Ibid., p.51.

²²⁰ Then, "a variation concerning any of these determinants gives rise to a structural adjustment of the money circulating in the community, or even the emergence of a new type of money – this is, according to Oresme, "the origin of black money, which is suitable for small purchases in countries where the available quantity of money is insufficient" (1990, Chapter 3), Lapidus, "Metal, Money, and the Prince: John Buridan and Nicholas Oresme after Thomas Aquinas.", pp. 31-32. Black money also in p. 33-34.

Oresme proposes that the government should also make sure that there is not too much abundance of those metals.²²¹ He does not make reference to the impact this scarcity or abundance had on the value of the minted coin, however, the reference to the quantity of metal, as a factor of monetary policy, is new. Moreover, it seems that his main point is to control and keep controlled the amount of money in circulation, according to the needs of each type of coin, as in the mentioned case when the relationship between silver and gold have to be maintained according to their “natural rate,” which is their relative scarcity.²²²

In sum, from being accepted if other resources harm subjects more severely, or if it benefits the common good, debasement in Oresme came to be allowed only if it served to adjust a certain disequilibrium in the monetary system and only with consent of the community. How then was the value of money defined? The value of the coin was first defined in terms of “itself,” in terms of the weight of the precious metal from which it was made or contained. Thus, the value of the bullion needed to make those coins is equal to the amount of coins minted with it minus the cost and taxes of minting it.²²³

Buridan is explicitly opposed to the prince setting the price of money (the so-called *valor impositus*). The relationship between the value of money and that of other commodities is set according to their proportions in satisfying human need.²²⁴ He seems to be aware still of the fact that money cannot always buy the same amount of commodities, hence, that its purchasing power varies, as reflected in an argument in his commentary on the *Ethics*.²²⁵

Buridan and Oresme’s ideas had a strong impact, both on policy making, as Spufford has shown, as well as on later scholastic authors, both canonists and theologians.²²⁶ As Spufford stated, Oresme’s defence of the “community” or of an effective “magnate”’s right

²²¹ “A l’inverse, il importe au gouvernement de la cite qu’une telle matière ne soit pas trop abondante.” Oresme and Buridan, *Traité Des Monnaies Et Autres Écrits Monétaires Du Xive Siècle* (Jean Buridan, Bartole De Sassoferato), p. 50.

²²² Lapidus, “Metal, Money, and the Prince: John Buridan and Nicholas Oresme after Thomas Aquinas.”, p. 32.

²²³ What Oresme defines as the cost being taken from the coin itself. Oresme and Buridan, *Traité Des Monnaies Et Autres Écrits Monétaires Du Xive Siècle* (Jean Buridan, Bartole De Sassoferato), p. 55.

²²⁴ « Comme la valeur de l’argent aura été mesurée en proportion du besoin humain, toutes les choses échangées pourront être appréciées en proportion avec l’argent. En effect, telles qu’elles seront en proportion du besoin humain. » Ibid., p. 163.

²²⁵ « De même, si la monnaie était la mesure des choses vendables, il s’ensuivrait que toujours pour des sommes égales j’aurais des marchandises égales. Mais cela est faux car, pour dix livres, j’ai tantôt un seul fût du vin, tantôt deux ou trois. » Ibid., p. 159.

²²⁶ Unfortunately, with the literature on usury, I left apart the study of Antonino’s works (Antonino di Firenze, 1389-1459) who, according to de Roover “inveighs especially against two injustices: payment in truck and in debased coins” [*Summa theological*, pars 2, tit. I, cap. 17, & 8 (col. 268-9), pars 3, tit. 8, cap. 4, & 4 (col. 313) and & 5 (col. 316)] (...); quoted in de Roover, “Labour Conditions in Florence around 1400: Theory, Policy and Reality.”, pp. 304-05.

over coinage “fitted well” with counciliarism within the Church.²²⁷ Along this line, Nicolò de’ Tudeschi (1386-1445), known as Panormitanus, Benedictine canonist of the 15th century who became Archbishop of Palermo, defended the idea of debasement as being a kind of inflationary tax.²²⁸ This idea was to be picked up later as well by Gabriel Biel (Speyer, Germany, 1425-1495);²²⁹ and in the following century, by Juan de Mariana (Toledo, 1536-1624), who would develop the argument of property rights and favour rebellion against the debaser tyrant.²³⁰ The comparison of debasement with other taxes may be seen as a corollary to the type of negotiations held between the monarchy and the local nobility, since, as we saw in the cases of France and Aragon, bringing the debasement of money to a halt was negotiated in return for the introduction of new taxes.²³¹

Neither Oresme nor Buridan commented on the impact debasement had on prices. However, both the tyrannical behaviour of the debaser king and the impact debasement had on prices and the general impoverishment of the population, were also denounced by noblemen in Castile in the 15th century, when they addressed the king, Henry IV of Castile (1453-1474), regarding the series of debasements and monetary chaos of the last years of his reign.²³² The

²²⁷ Spufford, *Money and Its Use in Medieval Europe.*, p. 308.

²²⁸ For Panormitanus however, the concept of community includes the whole population and so debasement may only take place with the permission of all the individuals because it affects every class. Fernández Delgado corroborates the idea defended by Ullastres and Spufford that Panormitanus went a bit further than Oresme in defining individuals and considering that the debasement of the coin affected everybody (“clero y laicos, nobles y plebeyos, ricos y pobres.”), hence expanding the idea of community further than to the rich and powerful classes. He quotes: Spufford, 2000: 75; Ullastres Calvo, A., ‘La teoría de la mutación monetaria del P. Juan de Mariana’, *Anales de Economía*, 4 y 5, I: 273-303, II: 437-471, 1945, I: 297); Rogelio Fernández Delgado, “Filosofía Política Y Teoría Monetaria En El Siglo Xvii: El Principio De Soberanía Y La Teoría De La Inflación Del Padre Mariana,” *La Ilustración Liberal: Revista Española y Americana* 21-22 (2004), n. 33. Changes that took place in relation to the development of the idea of citizenship, in opposition or contrast to the old division between *clericus* and *laicus*; See Ullmann, *Principles of Government and Politics in the Middle Ages / Walter Ullmann.*, p. 25. However, in Oresme, the only reference that I have seen that could lead to a comparison between debasement and a tax is when Oresme wonders whether to call it a despotique robbery or a fraudulent exaction. It appears however as a tax on merchants in Buridan. Lapidus, “Metal, Money, and the Prince: John Buridan and Nicholas Oresme after Thomas Aquinas.” p. 39.

²²⁹ See Gabriel Biel’s *Tractatus de potestate et utilitate monetarii*, where he extensively quotes Oresme and Panormitanus. Spufford, *Money and Its Use in Medieval Europe.*, p. 308. According to Fernandez Delgado, Biel’s text is a prolongation in the 15th century of Oresme’s work, both setting those circumstances in which the prince may alter the value of coins. Rogelio Fernández Delgado, “La Ruptura Del Pensamiento Económico Castellano En El Siglo Xvii: Juan De Mariana Y Sancho De Moncada” (Universidad Complutense de Madrid, 2003), n.31-33.

²³⁰ One of the latest, extensive works on Mariana’s conceptions in this respect is Fernández Delgado, “Filosofía Política Y Teoría Monetaria En El Siglo Xvii: El Principio De Soberanía Y La Teoría De La Inflación Del Padre Mariana.”

²³¹ In 1343, Philip VI returned temporally to good money due to an agreement with an assembly of estates in Paris to introduce in return a sales-tax. Spufford, *Money and Its Use in Medieval Europe.*, p. 305. This leads to another whole issue related with the manipulation of the coin, which is the development of a fiscal system, that is far from the purpose of the research.

²³² “corruption of the money... all the poor and middling estates are lost since they cannot maintain themselves because of the alteration of coins which Your Highness ordered... ” (...) “reduction in the finenes of the money...”

effects on prices in general, as well as on wages, were also mentioned by Copernicus (1473-1543) in his analysis of the progressive debasement of Prussian coins in the 16th century.²³³ He argued as well for the need for the prince to respect the (socially agreed) metal value of the currency, since debasement made good money disappear (in accordance with Gresham's law).²³⁴

About the connections between these scholars, we have already commented about the direct master-disciple relationship between Albert the Great, Thomas Aquinas and Tolomeo di Lucca, in that order. Aquinas' influence is, of course, evident also in other authors, but that of Albert should not be disregarded, at least, as we have seen, in the transmission of the idea that the mark on a coin is a guarantee of its purity and that money "ought to be firm." Pierre Dubois and Giles of Rome were also at some point students of Aquinas, as was de la Palu, according to Sarton.²³⁵ The sequence of transmission drawn by Langholm goes from Henry of Friemar to Guido Terreni, and then Odonis, to end with Buridan, and then, of course, with his disciple, Oresme.²³⁶ Henry of Friemar "drew on the Averroists" and so probably did Guido Terreni, in whose texts their influence is "evident," according to Langholm, although not so much in Odonis, who drew mainly on Olivi.²³⁷ Although the date of Odonis' *Tractatus de decem praeceptis* is not given, it was probably written after his commentary on the *Ethics*, and

And this was cause of the rise [in the face value] of money and the increase in the prices of goods and everything else, and your subjects suffered and daily suffer the extremely damaging consequences;" See, *Memorias de Enrique IV*, (p. 330...); Alvaro de Lunas accused the king of "a 'tyrannical' manipulation of the coinage, and a total lack of monetary responsibility;" MacKay, *Money, Prices and Politics in Fifteenth-Century Castille*, pp. 72-73, 97.

²³³ "[63] (...) De là vient cette plainte incessante qui retentit de tout côté, que l'or et l'argent, le blé et les provisions domestiques et le travail des artisans, tout ce dont les hommes font usage d'ordinaire, augmente de prix. Notre négligence nous empêche de voir que la cherté de toutes choses provient de l'avilissement du numéraire." Monete Cudende Ration, 1517; Nicholas Copernicus et al., *Écrits Notables Sur La Monnaie, Xvie Siècle, De Copernic a Davanzati; Reproduits, Traduits, D'après Les Éditions Originales Et Les Manuscrits, Avec Une Introduction, Des Notices Et Des Notes*, ed. Jean Yves Le Branchu (Paris: Félix Alcan, 1934); available in the web at: <http://www.taieb.net/auteurs/Copernic/monete.html> (05/12/05); According to Sarton, although Copernicus' treatise has little to do with Oresme's text, it is possible that he had read it, since it was printed in French in 1477, and in Latin at the beginning of the 16th century. Sarton, *Introduction to the History of Science (3 Vols.)*. (1948), vol. III, part II, p. 1284.

²³⁴ See, among others, Robert J. Kozlowski, "On the Revolutions in Economics: Copernicus' Contributions to Economics," *The Polish American Journal* (2001).

²³⁵ In addition to Pierre Dubois, Sarton also considered Francesco Pegolotti, Giovanni Villani and the Franciscan François de Mayronnes as predecessors of Buridan and Oresme. He already wrote that Oresme could have been inspired by earlier indictments about the "political dangers involved in the depreciation of money" raised by Pierre Dubois (c. 1250, d. 1321). Sarton, *Introduction to the History of Science (3 Vols.)*. (1947), vol. III, part II, p. 1283; part I, pp. 407-412, 516, 521, 527, 557.

²³⁶ Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 538.

²³⁷ Ibid., p. 399, n. 91; details in pp. 512-13.

thus could have been influenced by de la Palu's commentary on the *Sentences*, which Odonis indeed quotes in his later collection on economic contracts and restitution.²³⁸ That Buridan followed closely Odonis in the *Ethics* was first pointed out by James J. Walsh and later examined in various works.²³⁹ Langholm's hypothesis is that the sequence of development in the discourse goes from Guido Terreni to Oresme and Buridan, not from the brief note in Terreni's commentary on the *Ethics*, but from his longer exposition on debasement in a lost commentary on the *Politics*.²⁴⁰

II.3. Debasement in late medieval times: a comparison of scholastic positions

While Christian and Islamic scholars displayed common concerns in relation to fraud and cheating with money either by debasement or counterfeiting, referring to the circulation of bad coins introduced by merchants or money-changers, in periods when sultans and princes debased money, condemnations came to be addressed to the rulers. Christian scholars, as had Islamic jurists earlier, began at the turn of the 14th century, within a new context of monetized economies, to defend a strong-currency policy backing the intrinsic value of the currency. However, while they appealed to the consensus of the community and the prince who creates the law controlling coinage, Islamic jurists appealed to the consensus of the initial religious community, institutionalized in Islamic jurisprudence and the juridical and administrative apparatus. In this light, it is interesting to examine in more detail the points in common and the differences between the arguments raised by Islamic and Latin scholars when facing policies of debasement of money, and the motivations and factors that determined them.

²³⁸ References of the collection of questions in *Ibid.*, p. 540.

²³⁹ "James J. Walsh (1975, 248-57) has shown that Buridan quoted the *Ethics* commentator Gerald Odonis anonymously in Books I-IV, and later by name," probably after Odonis died in 1348, since the customary in Scholastic circles, as Langholm points out, was not to quote living authors by name. Authorities quoted in Buridan's commentaries on the *Ethics* and the *Politics* are: Albert the Great, Augustine, Averroes, Boethius, Cato, Christ, Cicero, Empedocles, Eustratius, Paul, Plato, Porphyry, and Thomas Aquinas. Only in the *Ethics* there are references to: Gerald Odonis, Robert Grosseteste, Eudoxus, Macrobius, Mohammed, and Proclus. In the *Politics* there are also references to the patristic authors, Peter Lombard's *Sentences*, and John of Freiburg's *Summa confessorum*. See: Odd Langholm, "Buridan on Value and Economic Measurement," *History of Political Economy* 38, no. 2 (2006), pp. 272-75. In addition to Langholm (1983), the affinity of Buridan's analysis and Odonis' commentary on the *Ethics* had been commented by Walsh (1975), and later Krop (1988) and Dupuy (1989), according to Baeck, *The Mediterranean Tradition in Economic Thought*, p. 171.

²⁴⁰ Langholm's argument is that both Buridan and Oresme's discussions "run to much greater length and suggest a common source within the commentary tradition of the *Politics*, for it is there, rather than in the *Ethics*, that Aristotle most openly invites such a discussion. (...) But it is pure speculation and probably must remain so." Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350*, pp. 505 & 538.

II.3.1. Similar political principles that did not grant the monarchs arbitrariness power to coinage

In the Latin world, during the late medieval period, only the king's lawyers, such as Phillip VI's lawyers to whom Oresme addressed his comments, defended the monarch's right to alter the value of money at his will. As far as scholars are concerned, be they Roman legists, theologians or canonists, and whether writing on Aristotle's commentaries, *quodlibets*, jurisprudence or treatises on political economy, they did not grant the prince such a prerogative, or if they did, it was on the basis of a certain consensus with the community.

Actual critiques to the practice of debasement then emerged among Christian scholars in confrontation with the theorists of political absolutism, both within the state and the church. From Oresme to Panormitano and Briel they came to take a harder position in Mariana, who centuries later was also to compare the prince who debased money with the tyrant who imposed new taxes on his subjects without the consent of the community and then stole part of their property.

In the Islamic world, those critiques also emerged from what may be considered to be a kind of "constitutionalism," in which loyalty to the monarch was granted under the conditions of his rule complying with Islamic ideals and Islamic law. State administration was, moreover, entangled with the juridical apparatus, controlled by the religious elite of scholars and jurists, who created certain mechanisms of control and regulated monetary equivalences and transactions.

Intervention of the ruler in monetary affairs and, particularly, in recurring coin debasement, was condemned because of the injustice it meant for both the common good and private property. Both aspects are closely related in the critiques against debasement of Islamic and Latin scholars alike. In both visions, money and property have such an importance that both belong to God and are regulated according to divine law, or emerge from natural law and are untouchable by political authorities without the consent of the community.

a. Common good and property rights

A key commonly-used concept in the critiques against debasement of money is that of the common good. The "virtuous prince" should take care of the common good, in a confluence of political ideas that spread from Aristotle and the Persian tradition of "mirrors for princes" to the Islamic world and throughout Christian kingdoms.

Al-Ghazālī's *Naṣīḥat al-Mulūk* (counseling for kings) explained how justice was a crucial virtue in the behaviour of princes, while, for aṭ-Ṭūsī, the just ruler, in preserving equivalence, was the “vice-regent” of Divine Law, while for Aquinas, the common good was indeed part of the kingly office.²⁴¹ Buridan used a similar idealized conception of the “virtuous prince” caring for the community more than for his own interest.²⁴²

The concept of common good was used to justify royal behaviour but also to introduce a certain control and to criticize royal decisions.²⁴³ While in the 12th century, Celestine III (1106-1198) allowed King Alphonse of Aragon to change the value of his money under the criterion of *utilitas publica*, such same criterion would serve to criticize the debasement in the 14th century, on the basis that the monarch was the guarantor of the law, and of the good coin, (minted as it was with his image on it), as well as the guardian of the common good. Durant the Younger condemned those princes who “debilitate the coinage” because it is a fraud of the commonwealth. In de la Palu, debasement should take place only as a second-best solution and due to the kingdom's needs. Guido Terreni considered debasement as licit only if it resulted from agreement of both prince and community and for the benefit of the common good, conditions that Oresme would also require, since the prince was the “guardian of money” in the name of the community.²⁴⁴

Aṭ-Ṭūsī, as well as Ibn Taimiyah, if Islahi's analysis is correct, and later his disciple Ibn Qayyīm, asserted that the monarch should refrain from intervening in the monetary system for the sake of the public or general welfare (*maṣlaḥah al-‘āmmah*). Trading in money meant opening a great door of injustice for the people and of devouring their wealth by false pretences. Giles of Rome warned also that the prince should not get involved in business with money.

In relation to property rights, Ibn Qayyīm's comment that coins are like representatives or heads of capital or revenues is quite revealing. Miskawayh said that one function of the king is to safeguard private property; not his private property but that of the citizens. Al-Ghazālī's mirror for princes had even clarified that the public treasure belonged to the public, not the

²⁴¹ al-Ghazali, *Ghazālī's Book of Counsel for Kings (Nas:Īh:At Al-Mulūk)*., p. 13. For Ibn Taimiyah, see note 52 above. Aquinas, *Summa Theologica*.; Part II-II (Secunda Secundae), Q. 50, Art. 1.

²⁴² “le prince doit être une cause de vertu pour son sujet,” Oresme and Buridan, *Traité Des Monnaies Et Autres Écrits Monétaires Du Xive Siècle (Jean Buridan, Bartole De Sassoferrato)*., p. 140.

²⁴³ See P. Kehr, *P. U. in Spanien*, i (Catalonia), 539, n. 238; quoted in Ullmann, *Principles of Government and Politics in the Middle Ages* / Walter Ullmann., p. 68.

²⁴⁴ See note 201 above.

prince, who has the right to only a portion of it.²⁴⁵ Its purpose was to satisfy the needs of the community and payments made in the public interest.²⁴⁶ Following that line, the ruler can neither appropriate the property of his subjects unjustly nor distort with it by imposing more taxes than those strictly accepted by Islamic law.²⁴⁷ Aquinas would justify any extraction of the subjects' wealth or property on the part of the monarch if done to safeguard the common good.²⁴⁸

b. The debaser as tyrant

When the prince violated the established order of property rights, either directly or indirectly, via alterations of the system of weights, measures and coinage, he damaged the private property of his subjects, and hence, his behaviour was considered unjust, or against the common good, making him then a tyrant. However, while Christian scholars used Aristotle's concept of a tyrant, as the monarch who puts his private interest over the common good, the two Islamic scholars viewed this behaviour as due to his lack of justice or disrespect of the law.

Giles of Rome is the first among Christian scholastics to consider the prince as a tyrant, in relation to monetary issues, if his purpose is only accumulating money.²⁴⁹ The idea that the prince who debases money becomes a tyrant, took shape increasingly from arguments that debasement harmed the common good. The first to point to the debaser monarch as a tyrant, in the Aristotelian sense, because he instituted money for his own utility and to the detriment of his subjects, was Pierre de la Palu (1275/80-1342). Guido Terreni followed that line, as did Buridan and Oresme.

²⁴⁵ "The money in the Public Treasury is of three kinds only: it belongs either to God or to His slaves or to you. If it belongs to God, He has no need of it, so give it to His slaves; if it belongs to God's slaves, give it to them, then (Q. xii. 88) 'give it to us in charity. Verily God recompenses the charitable.'" And "people's property ought not to be used except for the people's business." al-Ghazali, *Ghazālī's Book of Counsel for Kings (Nas:Īh:At Al-Mulūk)*.p. 68.

²⁴⁶ "L'argent du Trésor public est destiné aux dépenses d'intérêt général, aux besoins de la Communauté" Abu Hamid Muhammad ibn Muhammad al-Ghazali, *Le Livre Du Licite Et De L'illicite* (Paris: J. Vrin, 1991)., p. 173.

²⁴⁷ "A king who unjustly extorts wealth from the subjects and puts it into the treasury is like a man who builds the foundations for a wall (using) damp (brick) and puts the wall upon it when it is not yet dry; neither the top nor the bottom will endure." al-Ghazali, *Ghazālī's Book of Counsel for Kings (Nas:Īh:At Al-Mulūk)*.p. 80-81. About taxes see also p. 112.

²⁴⁸ "It is not robbery if princes exact from their subjects that which is due to them for the safe-guarding of the common good." Aquinas, *Summa Theologica.*, Part II-II (Secunda Secundae), Q. 66, Art. 8.

²⁴⁹ Certain comparison may also be drawn between Naṣīr ad-Dīn's volume on practical philosophy, *Akhlaq-i-Nāṣiri* (*Nāṣirian ethics*), which attempted to render together Miskawayh's treatise on *Ethics* and the other two main topics of Practical Philosophy, Politics and Economics, and Giles of Rome's *De regimine principum*, which also compiled the content of Aristotle's *Ethics*, *Politics* and *Oeconomics* in a similar comprehensive attempt.

Islamic texts criticizing debasement appeared within moral indictments against political and institutional cases of corruption in the Mamlūk apparatus.²⁵⁰ A contesting attitude coherent with earlier texts, in which the monarch not respecting the monetary law is compared to the “petty tyrant”, as in aṭ-Ṭūsī’s treatise on ethics, written at the beginning of the 13th century and extensively based on Miskawayh’s work. The contesting character of those claims in most cases, however, avoided the possibility of rebellion. Earlier statements by al-Ghazālī or al-Ukhūwah, during the 12th and also 13th century, had offered a much more conventional approach, in which the proper definition and character of currency depended on what was conceived to be “the coin of the country” at any particular time.

c. Positive versus canon law: Religion backing strong money

While, in the Islamic world, Islamic jurisprudence created a common referential framework that defined monetary standards and transactions, in the Latin world the law regulating money came to be the positive law, hence within the domain of the prince and the community, in conflict with canon law and papal sovereignty claims.

In the midst of renegotiation of property rights and sovereignty between local authorities, cities, princes, the emperor and the church, and after certain experiences with distortions brought about by significant debasements introduced by monarchs from the late 13th century to the mid-14th century, scholastic authors turned towards stricter views regarding the law of money. While emphasizing its permanent character based on the defense of the metallic content of coins, they laced its control and management in the hands of both prince and community, in consensus.

Islamic authors had done the same, although in a context more monetized and previously institutionalised. In that Islamic context, sovereignty principles and property rights were already reflected in a developed corpus of jurisprudence that fixed monetary transactions and the contractual basis of economic activity. Therefore, debasement indictments emerged within factions of the administration. For grounding their critiques towards debasement, Islamic scholars turned back to that corpus of legislation, arguing against the alteration of that contractual system that the political authorities of the moment had violated.

²⁵⁰ See al-Subki, *Kitab Mu`Id an-Ni`Am Wa-Mubid an-Niqam [the Restorer of Favours and the Restrainer of Chastisements]*, p. 37.

The use of religion and the sacred to appeal for the respect to “agreed” monetary standards, in terms of weight and alloy, although acquiring more explicit and institutionalized forms in the Islamic context, becomes a resource as well for Christian scholars in critical moments to defend the stability of money. Di Lucca gave the image on coins almost a divine character, while Giles of Rome, in order to counteract arguments for the prince’s prerogative over money, granted instead unlimited power to the pope to set “weight, measure and number.”²⁵¹ Even Oresme, in order to deny the debasement of money in terms of weight and alloy, would compare debasing money to committing perjury, because of the cross imprinted on the coin, and repeated God’s commandment: “*Tu ne prendras pas le nom de ton Dieu en vain!*.”²⁵²

Religion was used as the final instrument for legitimization in the hands of those who monopolize its interpretation.

II.3.2. *Defenders of a merchantile society and the stability of rentier classes*

The intromission of God, religious discourses and scholars into monetary matters could seem surprising if we do not remember the socio-economic position of religious communities in each context. Some Islamic scholars criticizing debasement worked as administrators of pious endowments or as *muhtasib*. In either the Islamic or the Christian case, religious communities were equally dependent primarily on real estate or public service, hence, on fixed monetary rents. In a context where economic transactions were increasingly monetized, and so dependent on fixed incomes and rents as with landlords or rentiers, the clergy and religious scholars were among those who suffered directly the consequences of being paid in money that was diminishing in weight and quality.

As a result, most members of the clergy and scholastics advocated a stable medium of exchange. Siding either with the local nobility or with the papacy, they defended the establishment of a sound currency in metallic terms and challenged the prince to defend their property rights.

The need for the monetary unit to be stable was also a basic condition for a commercial society to grow.²⁵³ On the other hand, a mercantile society also required that transactions be carried out within a system of fixed weights and measures. Both Islamic and

²⁵¹ See note 152 and 143 above.

²⁵² See note 207 above.

²⁵³ As Monroe stated, in a context of commercial expansion, “the spread of the ‘money economy’ made a stable currency more imperative. Monroe, *Monetary Thought before Adam Smith.*, p. 14.

Christian scholars emphasized the need for trade to take place through fair and clear transactions, without fraud or cheating.

a. Damages to wealth, rents and credit

Among Christian scholars, these alliances were reflected in the kinds of negative consequences they ascribed to debasement, mainly in rents and credit, and became particularly clear in Pierre Dubois, who makes explicit reference to the stagnation of nobles' rents.²⁵⁴ Odonis made explicit that merchants were harmed by the loss suffered in transferred payments because of debasement.²⁵⁵ Merchants, although they profited temporarily, rather than the opposite, from the increase in demand and exports generated by debasement, such as devaluation or depreciation of money, generated, also they needed stability to guarantee in the long run, commercial transactions. Indeed, Dubois commented that debasement increased demand by way of increasing exports, since it made it profitable to send out goods rather than money, while Oresme suggests the negative impact debasement had on trade, but refers to the impact it had on imports, particularly luxury goods. As Spufford highlights, this is a reflection once more of his own alliances with the wealthy or "landowning" classes, whose rents were those primarily harmed.²⁵⁶

When political authorities introduced monetary manipulations that altered negatively those rents they reacted, pointing to how debasement affected people's wealth. Ibn Taimiyah as well, and later his disciple Ibn Qayyīm, proposed that the monarch should restrain from intervening in the monetary system since trading in money meant a great injustice because it devoured people's wealth by false pretences.²⁵⁷ The idea of debasement devouring the wealth of the population also appears in as-Subkī and al-Maqrīzī.

b. Respect of weights and measures and condemnation of fraud

From early times in the Islamic empire, in response to the needs of a quite monetized patrimonial state and mercantile society that extended over a single broad territory,

²⁵⁴ See note 164 above.

²⁵⁵ However, I still find too hazardous advancing that they defended the rising mercantile class, as Baeck defends for the case of the Romanist. According to Baeck the Roman jurists sided with the emerging *marchanderie* of the city in their fight against the conception of *valor impositus*. So, they confronted the princes' authority in manipulating the value of currencies via a metalist conception of the value of money. Baeck, 1994, 146; Indeed, Buridan accepted debasement as licit to tax merchants for the interest of public affairs. Lapidus, "Metal, Money, and the Prince: John Buridan and Nicholas Oresme after Thomas Aquinas." p. 39.

²⁵⁶ Spufford, *Money and Its Use in Medieval Europe*., p. 306.

²⁵⁷ Islahi has compared Ibn Taimiyah's position with Oresme's. "We have already seen that these ideas [Oresme's] have been expressed by Ibn Taimiyah also, in the context of a larger discussion on securing justice for the common man." Islahi, "Economic Concepts of Ibn Taimiyah."p. 145.

institutions for the control of weights and measures in urban markets emerged as part of the development of the central administration. Although after the “reconquest”, those institutions were transferred in some territories of the Iberian Peninsula, where the figure of the market supervisor (*al-muhtasib*) became the Spanish *almotacén*, the general establishment and control of weight and measures in Christian kingdoms was a much later process that coincides with the so-called commercial revolution of the 12 and 13th centuries.²⁵⁸

The idea that debased or counterfeit money represents fraud in exchanges was mentioned by Guibert de Nogent (1053-1124), while Aquinas pointed to mixed things as defective in their substance and Friemar explicitly comments on debasement (diminishing the weight and purity of coins) being a fraud; Tolomeo di Lucca stated that altering money was like falsifying weights and measures; weights and measures that for him and Giles of Rome were the prerogative only of the Pope to set. For Wiliam Durant the Younger (c. 1266-1330) it was a fraud of the commonwealth, since it disrespected those weights and measures.

While the mercantile society was rising in the Latin world, it was settled in the Islamic world, as the bulk of regulations in Islamic jurisprudence dealing with monetary changes and commercial activity reflect. Islamic authors emphasized the need to avoid fraud and cheating while Islamic institutions regulated moral and economic transactions in the marketplace.

One important section of Islamic jurisprudence was dedicated to money-changes, where equivalences in exchanges of metal for metal were to be strongly respected. In the Latin world, the literature on changes or money-changes was basically related to regulating changes with different “international” coins. In international exchanges the currency of a certain city or region would become the standard of reference during its period of commercial dominance, due to the stability of its metallic content. At the end of the 13th century, shortly after the reintroduction of gold coins in Italy, Vernani’s commentary on Aristotle’s *Politics* and that of Oxford, as well as Terreni’s on the *Ethics*, maintained also that changes of money for money should take place according to commutative justice, hence, “equal must be given for equal;”

²⁵⁸ See Glick, "New Perspectives of the Hisba and Its Hispanic Derivatives.": 475-489. For further investigations see: Chalmeta Gendrón, "El "Señor Del Zoco" En España : Edades Media Y Moderna : Contribución Al Estudio De La Historia Del Mercado."; and Glick, "Muhtasib and Mustasaf: A Case Study of Institutional Diffusion.": 59-81. For the establishment of this type of controls in England, like the Assize of Measures of 1197, the Magna Carta of 1215 or the Carta Mercatorio of 1303, see Wood, *Medieval Economic Thought.*, p. 93.

an equivalence in value that, when referring to foreign coins or coins not in circulation, was defined in terms of weight.²⁵⁹

c. Common claims for a stable currency backed by the intrinsic value of money

In theoretical speculations about the definition of the value of money among Christian scholars, the analytical difference between the face value of money and its intrinsic value emerged in the analyses at the end of the 13th century. On the basis of this, 14th-century scholars came to ascribe the fluctuations in the value of money to arbitrariness changes in its face value introduced by monetary authorities, while the metal content of money was seen as the guarantee of its stability. It was based on the materiality of money that calls to restrain the power of political authorities over money developed.

Both Albert and Aquinas called for the stability of the monetary unit (in intrinsic value as well as in terms of its purchasing power). One of Aquinas' disciples, Tolomeo di Lucca, contended that money had to be a fixed and agreed measure, the image printed on it being almost divine. Gerald Odonis (c. 1290-c.1347) acknowledged the cost debasement meant in deferred payments for merchants. While Buridan denounced the political costs it entailed, by decreasing people's confidence in the prince who did the debasing, Oresme emphasized the harmful economic effects on the population, the deterioration of money circulation and trade, in addition to long-run instability in rents, salaries and credit. Oresme began by observing that it damaged fixed rents, and ended arguing that it was prejudicial for the whole community, as in Durant the Younger.²⁶⁰

Islamic jurisprudence set the standards of currency according to concrete rates of weight and alloy between gold and silver coins. The mark stamped on a coin was defended by Islamic scholars as a guarantee not only of its value in general but of its alloy and weight. Over time, although political authorities, or the sultan, did not always mint coins respecting canonic standards, those canonic standards were taken as models of a sound and strong currency. Moreover, the metallic content of the actual coin in circulation remained also the main parameter by which to set its value in respect to the canonic standards for paying taxes, dowries and religious alms.

²⁵⁹ Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, pp. 505-06.

²⁶⁰ See note 205 above. The fact that debasement affected the whole population would be emphasized as well by Panormitanus.

The value of money in the Latin world, the *valor impositus* of the official money in each place, was also defined according to certain units of account or monies of reference, which initially had been also defined as actual coins with concrete metallic parameters of weight and alloy. However, no single system of measures and standards regulated the monetary system over time and regions, nor did all regions belong to a single metallic circuit, with silver being the monetary standard in some areas while gold was the standard in others. Hence, within the monetary chaos amongst the various regions, the intrinsic value of coins, their metallic content, emerged progressively as the only stable value to take as reference, as in the Islamic context.²⁶¹

A result also of the rediscovery of Roman law, the revaluation of the metallic content of money, the *bonitas intrinseca* of the coin, as a key factor in its institutionalization, developed from Abbeville, who said good money had to be of due material and weight, and Albert, who affirmed that the mark stamped on a coin was a guarantee of the purity of metal. Henry of Ghent contributed to the discussion of the difference between face and intrinsic value, favouring the second as criteria in uncertain cases. Friemar followed Abbeville and defended the coin to be of “due weight” and “of a precious material, like gold and silver.” Guido Terreni (ca. 1265-1342) also repeated that the mark stamped in the coin was a guarantee of its value and weight. Oresme stated that the mark attested to the authenticity of material and weight.

II.3.3. *Early developments in monetary management*

In the Islamic world the initial social consensus that led to the use of money in Aristotelian philosophy was identified with the religious community that set the fixed standards and rates of the canonic gold and silver coins that were used as the money of account since the early days of the Islamic Empire. In the Latin world, that consensus was reintroduced only later as the agreement necessary between the community and the prince to change the law that established the coin. This *a posteriori* consensus opened the door to monetary adjustments and monitoring, a form of monetary policy, within the political community; a control of the monetary system that in the Islamic context was carried out by the administrative apparatus, which was not monolithic, but whose orthodoxy the jurisprudence safeguarded.

²⁶¹ “When just exchange rates are not officially observed, the commodity character of money will emerge and have to be recognized” Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, p. 270.

An additional aspect of convergence between monetary principles embedded in Islamic jurisprudence and scholarship and monetary conceptions and proposals of 14th-century Christian scholars is a certain attempt to control or monitor the monetary system. Those attempts would become early policy-making propositions, particularly in the case of Oresme and also in al-Maqrīzī, whose monetary proposal will be analyzed in more detail in following chapters. Of particular interest in this period are the attempts to understand the structure of the multimetallic monetary system, where coins of different denomination circulated in diverse spheres, as well as the role prices and supply of metals played within the whole structure.

a. Equilibrium of coins and metallic ratios as a way of safeguarding social cohesion

The establishment of fixed gold-silver monetary standards and their equivalences in Islamic jurisprudence reflected the administrative and commercial needs of an extended empire, which needed to maintain the monetary equilibria by way of maintaining its gold and silver circuits stable. It was, in my opinion, an attempt to keep the whole social system under control with respect to an “agreed” metallic content of money, in a manner similar to that expounded by Oresme and Buridan, and later Copernicus and Mariana.

In the Latin world, a bimetallic system of gold and silver coins became dominant only from the end of the 13th century on. Hence, either as a result of the reintroduction of gold coins, and the problems it raised for the equilibrium with silver currency, or resulting from the context and observation of the Islamic *modus operandi* in the neighboring Islamic bimetallic system, some awareness emerged of the need to balance the two metals in circulation.

Given the fact that coins of different denominations circulated in diverse socio-economic circuits, as Oresme and Shawāmil explained,²⁶² to fix their rates of exchange seems to be a way of neutralizing external distortions that could affect any of these spheres of circulation, due to changes in the supply of metals or coins of other regions. The exchange rate of petty coins, in relation to other noble coins, gold and silver, was not so strictly regulated.

²⁶² Similar analysis also emerged regarding the structure of the monetary system according to different monetary levels of circulation. Shawāmil and Oresme’s points about the structure of money are almost identical in this respect: “Tributaire certainement de la pensée grecque, il [Shawāmil] explique (...antes que Dimaski) que la vie en société et la division du travail ont fait maître le besoin d’objets rémunérateurs pouvant servir à rémunérer à leur tour d’autres travaux et incontestablement acceptés; une certaine rareté est indispensable; l’inaltérabilité de l’or et sa fusion facile lui ont valu la préférence sur tous autres produits. L’argent, (...) lui a servi de succédané, de suppléant (...) à cause de la divisibilité nécessaire. (...) la valeur de l’or est normalement – à poids égal et sauf altération – dix fois celle d’argent: `parce que dix , écrit-il, est la limite extrême des unités.” Brunschvig, “Conceptions Monétaires Chez Les Jurists Musulmans (Viiiie-Xiiie Siècles).”p. 2.

In addition to the opinions of the four Islamic schools of jurisprudence uneasy about, when not completely opposed to, the use of copper coins, several authors among those examined seemed to express caution or, at least, awareness, in relation to low-value coins: first, Abbeville in the 12th century, who stated the problems of bad and good money circulating at the same time given the possibilities of fraud this entailed; then, Oresme in the mid-14th century, who spoke of the use of black money when other metals are not available in sufficient quantity, but also warned that, if possible, it was better to avoid those kinds of alloy; and in the Islamic world Ibn al-Ukhūwah and al-Ghazālī, who referred, as did Abbeville, to the fact of bad or “non-official” coins circulating; Ibn Taimīyah, who warned about the “over-production” of debased or small coins; and al-Maqrīzī, who would extensively attack the use of copper coins at the beginning of the 15th century, and who indeed would later try to regulate it, as we will see in the next chapters.

The monetary circuit of low-value coins would be the one to absorb economic and monetary distortions and adjustments, once agreements between political and economic groups related to the circulation of gold and silver coins led to policies defending strong (gold and silver) coins. As mentioned, we will discuss this in the following chapter.

b. Need of adjustments: a new quantity dimension introduced by Oresme

Although claims against the thesaurization of money give proof of the awareness that scarcity of metals was a problem, the role the quantity of metal played in defining the value of money is underestimated in Islamic authors.

Ibn Taimīyah, and especially Oresme, offered nevertheless some interesting statements with respect to the relationship of money and commodities. Oresme described the metallic structure of the monetary system according to the relative scarcity of each precious metal.²⁶³ Moreover, he explained that the government of the city needs to make sure that there is enough metal to make coins but, at the same time, that that metal should not be too abundant. The reasons for this, are, however, not well explained. In this way, it seems that his main point is to control and keep controlled the amount of money in circulation according to the needs for each type of coin. Ibn Taimīyah’s comment that the prince should mint money according to the just value of people’s transactions could go also in this direction, since he seems to refer to the need for controlling the “over-production” of money. Oresme makes, nevertheless, no comment or reference to the impact this scarcity or abundance had on the

²⁶³ See note 217 above.

value of minted money. Oresme's reference to the problem of black money, noted above, was thought to involve a certain awareness of the quantity theory of money, but then disregarded as such.²⁶⁴ It seems to relate indeed to the needed proportionality of the amount of metal in respect to the amount of goods but he does not comment on the effect this has on their values, a connection that is the key element of the economic formula whose emergence we will examine in the following chapters in relation to the petty change: the quantity theory of money.

Nevertheless, Oresme's discussion of the gold and silver ratios introduced something new: the possibility of corrections in the legal ratio of gold and silver coins according to their "natural relation". This may refer to the rate in the bullion markets or to the supply resulting from mining activity (*cause réelle*). The first would mean that Oresme is taking into consideration the fluctuation of coins in the market and advancing the need to make adjustments in the value of coin accordingly. However, Oresme adds that these changes rarely occur, so the mining factor seems to be the only basis for his arguments.

Therefore Oresme, like his contemporaries, still maintained the idea that the value of gold and silver remained stable, the enduring conception portrayed by Xenophone and Aristotle that the value of gold and silver tend to be quite stable. Conception that transmitted to Aristotle's commentary tradition and which also continued among Islamic scholars of the epoch, such as Ibn Khaldūn. Changes in the value of money were attributed either to debasement, that is the decrease in weight or of the proportion of precious metals it possessed, or to changes in face value, due to devaluations in terms of the money of account introduced by the ruler.

c. Inflation and the purchasing power of money

The debasement of money, like the devaluation or depreciation of it, reactivated or accelerated minting, since with the same amount of precious metal more coins could be minted, increasing the number of coins in circulation and hence, demand, and thus prices.

Inflation, which also endangered property rights because it eroded rents but also the general purchasing capacity of the population, was, however, only pointed out as an outcome of debasement by two Latin scholars: Pierre Dubois and William Durant the Younger. The latter did not specify which was the mechanism that led to that outcome, but Dubois explained

²⁶⁴ Lapidus, "Metal, Money, and the Prince: John Buridan and Nicholas Oresme after Thomas Aquinas.", pp. 31-32.

that inflation was a result of debasement, making exports cheaper and increasing demand, which requires quite a developed economic analysis of the economy as a whole.²⁶⁵ In the rest of the discourses, however, including Oresme's, the inflationary outcome is not usually considered but only the direct effect monetary manipulations had on the value of money and hence, rents and wealth.

Islamic scholars did not comment much either about the connection between debasement and prices, although they considered that debasement diminished people's wealth or transactions, or led to the ruin of wealth in general, as in *as-Subkī*.²⁶⁶ They seem to refer only to the effects due to changes in the value of the money in which that wealth was defined. Ibn Taimīyah and al-Maqrīzī, however, made explicit comments on the purchasing power of money; Ibn Taimīyah in his controversial statement that "the intrinsic value of coin should match its purchasing power in the market" (following Islahi's translation); and al-Maqrīzī as a consequence of inflation (but petty change inflation) in fixed rents and revenues.

Concerning the relationship between the value of money and prices of other commodities in Latin scholars, it should be noted as well that the analysis of some scholars portrayed it in terms of purchasing power of money. Aquinas, Terreni and Odonis observed how the relationship varied with prices depending on fluctuations in the supply and demand of goods, and from there to Buridan and Oresme.²⁶⁷

²⁶⁵ See note 168 above.

²⁶⁶ Al-Maqrīzī would speak of high and rising prices but as result of the massive circulation of copper coins, as we will see in the following chapters.

²⁶⁷ See note 225 above. Urvoy comments how already Buridan and Oresme accepted that wealth is not only defined by the amount of silver in possession but by the acquisitive capacity of this silver. Urvoy, "Les Vues D'averroès Sur La Monnaie Comme Intermediaires Entre Celles D'aristote Et Celles Des Averroïstes Latins.", p. 203.

PART I - CONCLUSIONS: THE NATURE AND VALUE OF MONEY DURING THE LATE MEDIEVAL PERIOD

In the first chapter we saw how certain concepts such as the origins of money in trade, its function as an equivalent of exchanges, its role as part of the legal system that guarantees justice and redistribution, and hence the need for its stability, the critique of greed, usury or those pervasive monetary transactions that disrupt social cohesion, became so complex and widespread that it cannot be otherwise but that they resulted from a common tradition, indisputably Mediterranean.

In the Islamic world the initial social consensus that led to the use of money in Aristotelian philosophy was identified with the religious community that set the fixed standards and rates of the canonical gold and silver coins that were used as the money of account since the early times in the Islamic Empire. In the Latin world, that consensus was reintroduced only later as the agreement required between the community and the prince to change the law that established money.

Most authors understood the physical and material dimensions of money. However, they did not consider that the value of money depended on the fluctuations in the value of metals in the markets nor did they necessarily consider coined money to be a commodity. Money was needed as a measure for setting the value of other goods and so, in order to guarantee a confident and secure environment for exchanges, that measure had to be stable. Most Islamic and Latin scholars called for the stability of the monetary unit, and they appealed to the law to assure that stability. In that way, they developed similar or parallel conceptions of the monetary system, where the nature of a currency is related to the metal it is made of but whose value is fixed (or relatively stable) and guaranteed by law (be it divine law or positive law). It was the law, then, to which they referred when the political authorities manipulated or debased money, as we saw in the second chapter.

In the theoretical speculations about the definition of the value of money among Christian scholars, the analytical difference between the face value of money and its intrinsic value appeared in some writings at the end of the 13th century, a distinction that Islamic scholars did not portray or disregard. On the basis of this, 14th-century scholars came to ascribe the fluctuations in the value of money to arbitrary changes in its face value introduced by monetary authorities, while the metal content of money was seen as the guarantee of its

stability. Therefore, Christian scholars, as Islamic jurists had done before, came at the turn of the 14th century, in a new context of monetized economies, to defend a strong-currency policy backing the intrinsic value of the coin. It was based on the metallic nature of money that they called for restraint of the power developed by political authorities over money.

In this light, we saw how in the indictments against the practice of debasing money, a series of common arguments emerged among both Islamic and Christian scholars. While Christian scholars appealed to the consensus of the community and the prince, Islamic jurists appealed to the principles of Islamic jurisprudence, articulated in the juridical and administrative apparatus. A key aspect in most of these arguments was the appeal to the common good, which the prince had to protect.

The monarch who disrupted the established order of property rights, via alterations in coinage, damaged private property, wealth and credit and thus the common good, becoming therefore a tyrant. However, while Christian scholars accepted Aristotle's concept of a tyrant as a monarch who puts his private interest over the common good, the Islamic scholars considered a monarch to be a tyrant because of his injustice and disrespect of the law. Law had to guarantee the social convention or consensus that, within the community, had established the circulation of a particular type of currency and its equivalences.

However, even if both Islamic and Christian scholars were aware of the physical and metallic character of money, a fact that could not be otherwise considering that they lived immersed in multi-metallic monetary systems, they were not completely aware of all the implications of having a currency backed by metals that circulated and was traded, either as bullion or metal or as a coin.

It is in this respect that I would like to qualify Usher's conception of a "naïve commodity-theory of money" dominating the medieval period. With the monetization of exchanges, first in the Islamic world and also at the end of the 13th century in the Latin world, it became indeed a metallist conception of money backed by law, a kind of metallist-legalist conception.²⁶⁸ However, it was naïve because of the inner contradictions involved in maintaining a stable currency, in terms of metal, whether or not that value is fixed by law, in a metallic monetary system where the value of metals fluctuated due to changes in the market. When the price of metals changed in the markets according to supply and demand factors it

²⁶⁸ It could be closer to the mix of political and metallist conceptions that Roman legists portrayed and that Nicolet termed as a *caesaro-metallism*. C. Nicolet, *Rendre à César: Économie et Société dans le Rome antique*, (Paris: Gallimard, 1988); quoted in Baeck, *The Mediterranean Tradition in Economic Thought*., p. 169.

inevitably affected the value of money, which served as a measure for other commodities, wages and rents. It made not only the monetary system unstable and open to manipulation, but also impossible to reconcile the face value of money with the fluctuating value of metals and coins in international markets.

Such a metallic-legalist conception of money was thus based on unsound grounds, as was the monetary system that it reflected. I think this is the main reason why the critical literature has spent so much time trying to understand or explain the logic behind it, especially in figures like Aristotle or Aquinas. There is no logic. It is a contradiction inherent in the system. Scholars tried to solve or elude it by: thinking that either the value of those metals tended to be stable or, at least, more stable than the value of other goods, following Aristotle; ignoring the possibility of fluctuations in its value (as did Ibn Rushd and other Islamic scholars); declaring that, nevertheless, it had to be firm (Albert the Great) or that its purchasing power maintained constant somehow (Aquinas); stating that gold and silver metals were indeed isolated from market fluctuations (Ibn Khaldūn, as Xenophone thought for silver); or considering that fixing equivalences between gold and silver monetary references would guarantee the necessary stability of the system, as did Islamic jurisprudence and Oresme's proposals. This latter author posed also the possibility that the legal rate established between the coins could, at some point, be different than their "natural" equivalences, which opened the door for the need to monitor the system and intervene to adjust those rates according to the markets. However, he thought that those discrepancies were basically a result of changes in the supply of metals due to mining factors and so not frequent.

Moreover, the consensus to maintain the equilibrium between the gold and silver circuits in the economy, both within the Islamic monetary system, and in some parts of Latin Europe by the mid-14th century, a result of the agreements for a strong-money policy in line with Oresme's proposals, was achieved at the expense of low-value copper coins that remained out of the regulation. In this way, the monetary circuit of low-value money absorbed the economic and monetary distortions and adjustments of the system and so would be reflected, in particular, in contexts of bullion famine.

When metal supply and flows were constant the equilibrium between the monetary circuits could more or less be maintained. However, monetary shocks revealed the weaknesses of the system. As a result, that stationary perception of the metallic monetary system would be finally challenged when upheavals and movements in the supply of metals

and coins made evident the incompatibility of keeping a stable unit of exchange and a coin whose value was defined in terms of the precious metal.

In the following chapters, we will see how, by the end of the 14th century, in the context of bullion famines, experiences with small change and, in particular, small change inflation would challenge some of those views, while the 16th-century revolution of prices that accompanied American metal flows will definitively crystalize new conceptions. In the context of those monetary phenomena the role played by the total quantity of metal in the system in determining the value of money as well as prices would progressively be recognized with the experiences brought about by supply shocks.

PART II: THE EMERGENCE OF THE QUANTITY DIMENSION IN THE ANALYSIS OF MONETARY INFLATION AT THE END OF THE MEDIEVAL & EARLY MODERN PERIOD IN THE MEDITERRANEAN

This second part of the dissertation is dedicated to examining the emergence of the quantity dimension in the analysis and reactions of scholars and monetary authorities in cases of monetary inflation. Petty change will receive particular attention as will the reactions to the problems it posed for both those in charge of controlling or monitoring monetary changes and those scholars theorizing about it.

It was within the context of small change inflation, inflation originated by unusual increases in the quantity of low-value coins in circulation, that scholars and political agents first related the increase in the amount of those coins to the consequent general rise in prices. This generated calls to control the amount (quantity) of that petty change in circulation and meant a change in the analysis of monetary disturbances. As we saw in the previous section, the sources of monetary problems were earlier thought to be mainly the manipulation and alteration of the face value of coins, or of their metallic content, the debasement of money.

“Natural” market forces behind the depreciation of coins were either not fully acknowledged or considered almost irrelevant. However, at the end of the 14th century in Florence the quantity of small coins was regarded as the key factor in explaining the declining value of currency. Later in Cairo at the beginning of the 15th century, the increase of the quantity of small coins in circulation was perceived also as the cause of the inflation and depression that desolated the country.

In this second part, I analyze these experiences with petty change in the context of the bullion famines in the Mediterranean in the late medieval period. Amidst the consequent small change inflation, some authors took into account the quantity element in the analysis of monetary inflation. In this respect, the Egyptian case and the writings of al-Maqrīzī, a contemporary scholar who speculated on the consequences of those small change problems for monetary management, deserve special attention in the fourth chapter. The fifth chapter, first reviews how, in the context of the so-called revolution of prices, with the arrival of massive flows of silver and gold from America, sixteenth-century writings on money led to a further development in the analysis of monetary phenomena: the early formulations of the

quantity theory of money. Then, second, different conceptual changes that led to that outcome are described in order to finally compare those early calls to control the amount of petty change in circulation, analysed in the third and fourth chapters, with the later writings of the 16th century. The final objective of the comparison is to understand those conceptual changes and subtle nuances that took place in the development of the quantity analysis of monetary inflation.

CHAPTER III. THE PROBLEM OF SMALL CHANGE AND THE FIRST BULLION FAMINE IN THE MEDITERRANEAN AT THE TURN OF THE 15TH CENTURY

“c’est par les monnaies des métaux inférieurs que l’on peut le mieux juger de la fertilité et de l’abondance d’un pays car par elles s’achète, au détail et au jour le jour, ce qui est nécessaire à la vie quotidienne...”¹

For centuries, while the monetary system was basically metallic, the “central issue in the administration of money,” as Cipolla and then Meloy pointed out, was to determine and control the appropriate amounts of precious metal and base metal coinages in the economy, with the objective of maintaining a stable monetary system.² In those monetary systems in which money was not fiduciary, that is, when the value of money was defined in terms of its metallic content, it was particularly difficult to keep stable the value and amount of money in the economy, and between coins of different denomination, circulating in the diverse monetary circuits and generating continuous distortions in prices, rents and trade.³

Slight developments and moves in monetary policy took place as a result of the problems monetary authorities faced in managing more sophisticated and multi-metallic monetary systems. While the metal flows altered the value of money and the level of prices, leading to the progressive depreciation of the currency, different interest groups intervened to maintain the value of certain currencies, debasing others, monetary authorities gaining from extra boosts of liquidity, seigniorage or speculation.⁴

Since the value of precious metal was not constant and, moreover, was subject to its own market dynamics, there was always room to speculate between the official rate of currency (value of exchange in relation to the unit of account) and the value of its metallic

¹ Alonso de Herrera (16th c.), in G. Parenti, quoted in Fernand Braudel, *La Méditerranée Et Le Monde Méditerranéen À L’époque De Philippe II* (Paris: Armand Colin, 1990).(1976, p. 478); (vol. I, p. 695, in the Spanish edition)

² Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī’s Ighāthah and Shudūr", p. 198. See also Cipolla, "The Big Problem of the Petty Coins.". Sargent & Velde entitled their book paraphrasing Cipolla, and it is indeed dedicated to him, *in memoriam* to Carlo Maria Cipolla. Sargent and Velde, *The Big Problem of Small Change*..

³ For the progressive introduction of fiat money see: Harry A. Miskimin, *The Economy of Later Renaissance Europe, 1460-1600* (Cambridge: Cambridge University Press, 1977).., p. 158.

⁴ See Carlo M. Cipolla, "Currency Depreciation in Medieval Europe," *The Economic History Review* II, no. XV (1963)..

content (its intrinsic value). Monetary stability was even harder to preserve when different coins of different metals circulated in the markets and were affected themselves by different dynamics and pressures. A monetary formula that guaranteed control over the monetary system and the equilibrium between petty and big coins in the economy was only progressively achieved from the seventeenth century on. We will see, however, that in previous centuries there were also different attempts to control the monetary base and the monetary system. It seems to have been an almost constant historical concern not always easy to achieve.

The monetization of exchanges in the late medieval period occurred parallel to a rise in the demand for monetary units of exchange for daily transactions, the so-called small change or black money.⁵ Black money was minted and circulated in cities where there was an increasingly stronger demand for change to use in day-to-day purchases.⁶ The low-value coins that formed that small change experienced relatively important increases in their use and demand, while, because of the low quality and alloy of the metals they were made of, they were more susceptible to manipulation and speculation on the part of monetary agents, including intermediaries, traders and authorities, who profited from the new monetary circumstances and needs. Consequently, the increase in the use and flows of metals and money posed important problems for the equilibrium and control of the monetary base of economies, particularly in respect to the quantity of small change in circulation in the context of multi-metallic monetary systems.

I will then focus on a monetary problem that seems to be at the center of and linked with the whole set of monetary-policy issues presented: the big problem of petty change.⁷ The big problem of petty coins, as termed by Cipolla (1956) or the big problem of small change, as re-termed by Sargent & Velde (2000), refers to the problematic relation between the value

⁵ Watson pointed out that the bullion famine did not correspond to a real lack or shortage of metal since “the total supply of bullion in the region affected was not much changed” Watson, “Back to Gold and Silver.”, p. 32. This means that it was basically the “monetization” of the economy what generated the need for coins, in addition to the flows of metals from cities or regions because of the Gresham’s law and debasements.

⁶ Paris, London, cities of the Netherlands and particularly of the north of Italy. The fact that indeed in norther Italy the old denari or piccoli were black money already in the thirteen century is a sign of the monetization of their economies. Their value in Florence and Pisa continued declining along the 14th century, till becoming “no longer worth minting” and then substituted by the “black quattrini” valued 4 pieces of those old denari. Spufford, *Money and Its Use in Medieval Europe.*, p. 329.

⁷ Petty change seemed to be the key element of monetary policy in other stances, as in the introduction of the gold standard in 1816 in England, which was made “largely on the basis of details of small coin convenience, and not on larger issues of economic policy,” Frank Fetter and Derek Gregory, *Monetary and Financial Policy* (Dublin, 1973), p. 16. Quoted in Angela Redish, “The Evolution of the Gold Standard in England,” *Journal of Economic History* 50, no. 4 (1990)., p. 791.

of large denomination coins and the amount of petty coins in circulation, a relation which was almost impossible to control because of the already-mentioned problems the monetary systems faced in hard money economies.

In a context of expanding monetary exchanges, hard money economies had to rely on the existent supply of metal to cover their monetary needs – on metal coming from mines or being imported.⁸ The scarcity, or, in contrast, the abundance, of certain metals or coins was a constant problem.⁹ However, in some countries these “famines” turned out to be relative famines, where the scarcity of one metal coin, usually gold or silver, coincided with the massive influx of coins made from another metal, usually silver mixed with or basically copper coin (billon, or *vellón* in Spanish). As a result of the invasion of *petty* debased coins, a series of inflationary periods followed, which could be termed as “small change inflation”.¹⁰ In this context, the practical and theoretical complications that emerged for monetary management during the so-called “bullion famine” of the late fourteenth century (1392 to 1412/25) and the cases of billon inflation, that appeared as a consequence, are results of particular interest for the history of monetary thinking.¹¹ Monetary authorities attempted to stabilize the fluctuating relationship between *petty* and big coins, resorting to similar instruments, such as devaluation or debasement.¹²

⁸ In the late Middle Ages, economies still relied on “hard money” for monetary transactions, that is, on coins made out of precious metals and valued according to their weight; in spite of the development of credit and deposit banking, there was no fiduciary or paper money. Day, “The Great Bullion Famine of the Fifteenth Century.”, p. 3. Day speaks of “European” economies, but we may extend those same circumstances to the whole Mediterranean.

⁹ “Coins were scarce; and they were scarce partly because a tremendous and widespread propensity to hoard drained relatively large amounts of the existing metals from the current supply. In addition, slow and infrequent communications and the autarchic tendencies reduced the velocity of circulation of coins. Conclusion: a general shortage.” Cipolla, *Money, Prices, and Civilization in the Mediterranean World, Fifth to Seventeenth Century.*, p. 9.

¹⁰ Term used by Spufford to describe the inflation that followed, in Flanders, the other “bullion famine” of the third quarter of the 15th century [the “third ‘Great Bullion Famine’” according to Blanchard’s classification], which resulted in the massive appearance of small change. See Spufford, *Monetary Policies and Problems in the Burgundian Netherlands, 1433-1496.*, p. 220; commented in Day, “The Great Bullion Famine of the Fifteenth Century.”, p. 46. I am applying the term to similar phenomena (floods of small change and inflation) that appeared during the bullion famine of the last years of the late 14th century and beginning of the 15th century.

¹¹ See Day, “The Great Bullion Famine of the Fifteenth Century.”, p. 33. For European countries Mackay tracks a general decline in minting during this period. MacKay, *Money, Prices and Politics in Fifteenth-Century Castille.*, pp. 25-26. The denomination of those famines changed depending on the scholars. Blanchard denominates it “Second ‘Great Bullion Famine’” to distinguish it from the first great bullion famine of the first half of the 13th century. A third “Great Bullion Famine” would take place in 1455-65. Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy.*, p. 271. In relation to the “small change inflation” Usher speaks of “vellon inflation.” Usher, *Early History of Deposit Banking in Mediterranean Europe.*, p. 232.

¹² Mackay explains how from the 1390's onwards given that markets were invaded by debased “black money,” rulers tried to counter the bullion famine by resorting to competitive devaluation. MacKay, *Money, Prices and*

Different factors led to the shortage of bullion, particularly silver, during those decades: changes and interruptions in mining and the supply of metals, metal outflows resulting from trade deficits with the East, the hoarding of metal for reasons of security, prestige or status, plus the scarcity of metal due to the normal processes of erosion and destruction of coins, all combined in contexts of increasing monetization of economic activities, particularly in urban settings.¹³ In one way or another, the bullion famine of the late 14th century affected most cities on the two shores of the Mediterranean, which reflects the interdependence of the economies of the region.¹⁴ In some French cities, minting of silver coins had almost ceased in 1402, and the same happened to gold by 1405.¹⁵ In Flanders, gold and silver production fell in Bruges at the turn of the century, while Leuven's mints also had to close by 1395 because of the excessive prices of bullion.¹⁶ In the kingdom of Aragon, there was as well a considerable reduction of minting gold and silver during the mentioned two decades of the bullion famine. As Day writes, in the kingdom of Navarra no gold was minted from 1382, to the end of the following century, nor was any silver struck from 1391 to 1428; in Portugal there was no minting of gold from 1383 to 1435, and the silver coin was debased until it was almost completely copper during basically that same period; while in Italy the famine was basically of silver.¹⁷ In Milan the decline of bullion stocks was also felt from

Politics in Fifteenth-Century Castille., p. 26; Also in: Day, "The Great Bullion Famine of the Fifteenth Century.", pp. 15-16.

¹³ For an analysis of the consequences of changes in mining and mining regions in metal prices during the period, see Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy.*, p. 1506; For metal flows see data from Day, "The Great Bullion Famine of the Fifteenth Century.", pp. 5-13. For the trade deficit explanation, Ashtor gives data of the commercial flows in the Mediterranean. He comments how the first signs of the famine in Florence in the second quarter of the 14th century were seen by Giovanni Villani, who explained that it was due to the export of silver overseas. An episode already registered in Rodolico: "*tutte le monete d'argento si fondieno e portavansi oltre a mare.*" N. Rodolico, "Il Sistema Monetario E Le Classi Sociali Nel Medio Evo," *Rivista Italiana di Sociologia* VIII (1904). p. 465. See rest of analysis in: Ashtor, *Les Métaux Précieux Et La Balance Des Payements Du Proche-Orient À La Basse Époque.*, pp. 41-43; Boaz Shoshan, "From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt," in *Studia Islamica*, ed. Abraham L. Udovitch and A. M. Turki (Paris: G.-P. Maisonneuve-Larose, 1982), p. 101; and Robert S. Lopez, Harry A. Miskimin, and Abraham L. Udovitch, "England to Egypt, 1350-1500: Long Trends and Long-Distance Trade," in *Studies in the Economic History of the Middle East*, ed. M. A. Cook (London: 1970). Nathan Sussman has contested the thesis that the "great bullion famine" was result of the permanent deficit trade with the Near East. She points out instead to the fact that an important part of the bullion was lost in hoards. See Nathan Sussman, "The Late Medieval Bullion Famine Reconsidered," *The Journal of Economic History* 58, no. 1 (1998), p. 126. It was a combination of the different mentioned factors.

¹⁴ The supply of silver and gold fluctuated depending on the region and the structure of its trade and monetary system. Spufford speaks of signs of the silver famine appearing already by the 1340s, 1360s or 1360s in different areas; but in accordance with Day, he confirms that "in many areas of Europe reached famine proportions in the 1390s." Spufford, *Money and Its Use in Medieval Europe.*, pp. 348-49.

¹⁵ Day, "The Great Bullion Famine of the Fifteenth Century.", p. 13. Commented also in Spufford, *Money and Its Use in Medieval Europe.*, p. 346.

¹⁶ Day, "The Great Bullion Famine of the Fifteenth Century." pp. 16-17.

¹⁷ *Ibid.*, pp. 20-23.

1390-1429, and by 1404, silver pieces had disappeared from the boxes of the cathedral, while the famine in Genoa did not reach the critical levels attained in other cities, affecting only the silver coin; yet, incentives to import bullion and controls over its exportation were imposed between 1400 and 1402.¹⁸ Even Venice, although escaping most of the famine thanks to the supply coming from Serbian and Bosnian mines, had to decree the repatriation of silver acquired abroad in 1408.¹⁹ Nagl recounts that, after the middle of the 14th century, good silver *grossi* were rare in Florence, whose currency came to consist of gold and black (copper) money; the minting of Florentine silver coinage ceased completely from 1392 to 1402.²⁰

The famine was reflected as well in the Near East during approximately the same decades.²¹ The series of debasements that the Mamlūks introduced in the silver coin, the *dirham*, in the second quarter of the 14th century, has been seen as a sign of the bullion famine extending to the Near East.²² In a way similar to what was happening in Italian cities, the trade deficit with the Far East led to continuous flows of silver towards the East. As a result, when silver stopped coming from the *francs* (Europe) it necessarily led to the shortages of bullion in Egypt and Syria.²³ Contemporary chronicles, like those of al-Qalqashandī or al-Maqrīzī, mention that in 1398 the importation of silver from Europe ceased, and blame as well thesaurisation for the lack of metal.²⁴ Hence, as in European cities, the combination of

¹⁸ Ibid., pp. 28 and 23.

¹⁹ She had also imposed restrictions on the export of silver in 1396. Papadopoli quoted in Ibid., p. 31; also commented in Spufford, *Money and Its Use in Medieval Europe*., pp. 349-50.

²⁰ There were strong speculations against the *grossi* in 1367-69. See Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria*., p. 201. It was in the midst of the late 14th century bullion famine that the Florentine gold *fiorin* was debased for "the first time of its 150-year history." The original weight of the *fiorino* was only restored in 1422 to reach again the level of the Venetian ducat. Data from the chronicler Ammirato, A. Nagl (1894), I. Orsini (1760) and G. A. Zanetti (1775-89), Day, "The Great Bullion Famine of the Fifteenth Century.", p. 26-27. Cipolla mentions that Florence, in contrast with the policies followed by France and other regions that financed wars with successive devaluations of the coin, devaluated her (gold) coin only twice during the 14th century, in the gold famine of 1345-1347 and the invasion of Pisan *quattrini* in 1366-71, for monetary and not fiscal reasons (Cipolla, 1994, p. 215. Cipolla again probably refers to debasement instead to the devaluation of the coin. The situation of the silver and copper coin was however different and suffered both progressive devaluations and debasements.

²¹ The first 'famine' in Europe covered the period 1395-1415; while, according to Ashtor, the first Near East bullion famine lasted from circa 1398-1400 to circa 1412-15. See Day, "The Great Bullion Famine of the Fifteenth Century.", p. 33.

²² Ashtor, *Les Métaux Précieux Et La Balance Des Payements Du Proche-Orient À La Basse Époque*., p. 40.

²³ Day links both silver famines in Europe and Egypt since it was by way of Venice that Mamlūk sultans received an important part of their bullion supply. Qualquachandi and M. Guadefroy-Demembynes (1923), Day, "The Great Bullion Famine of the Fifteenth Century." p. 32. Following those sources, Spufford defends that Venice's restrictions to the export of silver in 1396 "immediately ensued" a silver famine in Egypt, Spufford, *Money and Its Use in Medieval Europe*., p. 354.

²⁴ Both al-Maqrīzī (d. 1442) and Qalqashandi (d. 1418) point to the same factors to explain the shortage of silver coins in Egypt: thesaurization and the stop of its importation from Europe: "because of the silver wasted in making saddles, plate, etc." and because it had stopped coming in from "the country of the Franks". (Qualquachandi and M. Guadefroy-Demembynes (1923), Day, "The Great Bullion Famine of the Fifteenth

both thesaurisation and trade deficits led to bullion famine in Alexandria and Cairo. The shortage of silver in Egypt ended only with the reintroduction of the silver coin by Sultan al-Malik al-Mu'ayyad Shaykh (1412-1421) in 1415,²⁵ which means that it lasted from 1398-1400 to 1412-15.²⁶

The shortage of silver led to increases in the price of bullion and speculation with the undervalued currencies made out of it.²⁷ It put into action the so-called Gresham's law: the high price of bullion caused a shortage in markets of good (undervalued) coins, because they were being taken to the mint to be melted down, while overvalued coins, usually debased or low-value coins made of lower alloys of metal, filled the resulting gap. The shortage of silver increased the gold-silver ratio, the relative value of silver in relation to gold, damaging the latter. Monetary authorities usually turned to debasing silver coins in order to, first, enhance reminting and avoid the flight of those coins, and second, protect the gold currency.²⁸ However, it was not always enough to resume minting or stop the outflow of good coins, although the gold coin managed to maintain a certain amount of stability.

The existence of coins of similar denomination but different alloy in neighbouring cities, between which a high level of intertrade took place, made coins of lower quality flow into those markets where coins were of higher standards.²⁹ Although small change was usually rare because it gave not much profit to the mint master, being relatively more costly in terms of labour, the lack of bullion made it a necessary or suitable alternative.³⁰ Hence, at the

Century.", p. 32. Al-maqrizi's *Shudhūr* (p. 161, l. 4/5), quoted by Ashtor. M. Bloch and Ashtor also pointed to the high and escalating military expenses Mamlūk sultans faced. However, that could not explain the fact that metals were not circulating. Political and economic uncertainty may instead explain the high levels of thesaurization those metals experimented at that time, which left them out of circulation, or the melting of metal to fabricate gold ornaments and jewellery, both symbols of status and security, facts also mentioned by Ashtor. Ashtor, *Les Métaux Précieux Et La Balance Des Payements Du Proche-Orient À La Basse Epoque.*, pp. 44, 99 & 102.

²⁵ A bit earlier in Syria, since emir Nawrūz (d. 1414) coined silver coins already in 1412. Popper, "Egypt and Syria under the Circassian Sultans 1382-1468 A. D.: Systematic Notes to Ibn Taghrī Birdī's Chronicles of Egypt (Continued).", p. 55-57.

²⁶ For year 1412 see previous note 25. Ashtor basically based on al-Maqrīzī's chronicles. Ashtor, *Les Métaux Précieux Et La Balance Des Payements Du Proche-Orient À La Basse Epoque.*, p. 44. Dates also accepted by Day, "The Great Bullion Famine of the Fifteenth Century." p. 33.

²⁷ Day, "The Great Bullion Famine of the Fifteenth Century.", p. 12.

²⁸ "rulers tried to counter the bullion famine by resorting to competitive devaluation," MacKay based on Say; MacKay, *Money, Prices and Politics in Fifteenth-Century Castille.*, p. 26. MacKay probably refers to debasement, the two terms being frequently confused in the literature.

²⁹ Like in Florence: "*Usavano i cambiatori di barattare le monete d'argento fiorentine con quelle di altri paesi, inferiori di qualità, e dopo di avere guadagnato nel cambio importavano in città tali monete; e la povera gente le riceveva invece della moneta spicciola paesana.*" Rodolico, "Il Sistema Monetario E Le Classi Sociali Nel Medio Evo.", p. 467.

³⁰ If we think of bullion, silver and gold, as a substitute for good coins, like bonds are for money nowadays, an increase in the price of bullion works as an increase in the interest rates now: it makes more profitable to put

end of the 14th century small coins invaded numerous areas and markets. Those small coins were made out of alloys of copper and silver and usually were a result of successive debasements of former silver coins. They were called “black money,” *monnaie noire*, *moneta nera*, or *dirham fulūs*, as a result of the darker color of the poorer alloy, in contrast to white coins (silver *dirhams* or *quattrini bianci*) that had a higher percentage of silver.³¹

Their use expanded from the second half of the 14th century on. In France the problem with small coins had appeared parallel to those of debasement and devaluation after Philippe le Bel. His successor, Jean II (1350-1364), not only devaluated the monetary unit, the “*livre tournois*,” but issued “large quantities of debased *nummi* (small coinage).”³² In Florence, from the mid-14th century, the *quattrini*, silver coins, were progressively debased and had become the basic coin for setting local prices.³³ In Siena, according to Donato di Neri, by 1375, given the lack of *piccioli*, small commodities started being sold as well by *quattrini*.³⁴ During the first two decades of the 15th century, the disappearance of gold in French cities was accompanied by an invasion of debased “black money.”³⁵ In Paris, in the late 14th century and beginning of the 15th, the price of ordinary everyday purchases (fruit, vegetables, bread, meat, wine, almsgiving, and so on) was set in *monnaie noire* (*deniers*).³⁶ In Cairo, al-Maqrīzī complained that not only daily goods but also wages were set in “black dirhams,” which were

your wealth into bullion and melt the good coins, leaving them out of circulation. In the monetary systems of our time, the increase in the demand of bonds represents a decrease in the demand for money and a net fall in level of liquidity. However, in the metallic monetary systems of the late medieval period, the lack of good coins in circulation could be compensated with the appearance of low value (or bad) coins – coins of lower intrinsic value (overvalued), coming either from neighbour regions or being minted if the difference of prices made it profitable enough.

³¹ Pagnini also defines it as such: “Per *Moneta Nera*, o *Erosa* intendo tutte quelle specie, che contenevano minor quantità d’argento, e maggior dose di rame, o d’altro basso metallo.” Pagnini, *Della Decima E Di Varie Altre Gravezze Imposte Dal Comune Di Firenze: Della Moneta Della Mercatura De' Fiorentini Fino Al Secolo Xvi.*, p. 162.

³² Sarton, *Introduction to the History of Science* (3 Vols.). (1948), vol. III, part II, p. 1283.

³³ Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria.*, p. 201.

³⁴ “In questo tempo di genaio a febraio [1375] valse in Siena el fiorino l. 4. s. 10, e andò a l. 5, s. 6. El comune ne tolse molti e disfeceli, perchè non si trovava piccioli, nè alcuno non ne volea nè potea ricevere. Unde gli artefici, e spetialmente li più minuti, si recaro tutti a mercatare e vendere a quattrini tanta derata di cose minute cioè: orto, fruta e legno e cacao; e davano per uno quattrino quanto davano prima per uno picciolo. Unde si può dire, ed è vero, che il fiorino vaglia s. 18. E così è pericolato tutti quelli che vivono di pocissioni oggi in Siena.” Donato di Neri, “Cronaca Senese di Donato di Neri e di suo figlio Neri,” in Lodovico Antonio Muratori, ed., *Rerum Italicarum Scriptores: Raccolta Degli Storici Italiani Dal Cinquecento Al Millecinquecento*, vol. 15 (Bologna: Nicola Zanichelli, 1936), parte 6 (*Cronache Senesi*), (fasc. 300): 565-752, p. 660.

³⁵ In Toulouse, while gold coins disappeared from circulation debased “black money” invaded the market. Day based on Wolff, Day, “The Great Bullion Famine of the Fifteenth Century.” pp. 14-15.

³⁶ Spufford, *Money and Its Use in Medieval Europe.*, pp. 330-31.

taken as legal tender and dominated the Egyptian markets from the second half of the 14th century.³⁷

In some of these cities, monetary proposals were raised in order to control the inflows of small change that disturbed the distribution of rents. Authorities in Florence and Cairo, in particular, introduced measures to take certain quantities of small coins out of circulation. According to Cipolla, measures to reduce the number of small coins circulating were taken also in Siena in 1375.³⁸ However, I have checked the chronicle Cipolla made reference to and it indeed makes no mention of any small change being melted down but only to daily transactions being set in *quattrini*.³⁹ Having no more evidence of this or other similar cases, I will then analyze the measures introduced in Florence, in 1380-82, although soon aborted, and Cairo, in 1411-18, where actual amounts of copper were taken out of circulation.

III.1. The case of *Quattrini* in Florence and the consequent monetary reforms of 1378-1380

In Florence, the invasion of small change coming from neighbouring cities began in the second half of the 14th century, first with *piccioli*, and then, when local Florentine *piccioli* were debased, with *quattrini*.⁴⁰ The *quattrini*, made of silver and some copper, had started being used in Florence and Pisa during the 14th century, coming to substitute the old *denari*, the former coins used for small change, which were made worthless as result of their

³⁷ al-Maqrîzî, *Ighâthah Al-Ummah Bi-Kashf Al-Ghummah*., p. 125; Tomass, "Al-Maqrîzî's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.", pp. 134-35.

³⁸ Authorities in Siena decided to melt small change in 1375 in order to stop the raising tendency of the *fiorino senese*. Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria*., p. 211.

³⁹ Cipolla takes this information from Rodolico ("Il sistema monetario"), who quotes the mentioned section in the *Cronaca Senese* of Donato di Neri, written about 1381-84. Probably Cipolla is merely based on Rodolico sentence that the proposal to melt small coins in Florence "resembles somehow" the measures introduced in Siena, although there is no further explanation of it: "*e si ricorse quidi alla provvigione del 24 ottobre che ricorda in qualche modo i provvedimenti adottati a Siena a pochi anni innanzi, e dei quail il cronista ci ha dato notizia.*" Rodolico, "Il Sistema Monetario E Le Classi Sociali Nel Medio Evo.", p. 469. I have checked in Donato di Neri's chronicle the events of 1375 and I found no mention to small change being melted other than the already quoted reference to *quattrini* being used as *piccioli* for small, daily transactions. See Donato di Neri in Muratori, ed., *Rerum Italicarum Scriptores: Raccolta Degli Storici Italiani Dal Cinquecento Al Millecinquecento*., pp. 567, 657-661.

⁴⁰ The 22nd of June 1366, the use of small foreign coins was forbidden in Florence and the florentine *piccioli* debased, with a reduction of a 35% of its silver value, however, they were still of a better alloy than the Pisan ones. As a result of the concurrence of Gresham's law Florentine *piccioli*, minted or sold to gain from their higher intrinsic value, disappeared and Pisan *piccioli* flew Florentine markets (data from Bernocchi and de la Ronciere). Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria*., pp. 197-99.

progressive debasement.⁴¹ Given the lack of silver, when *grossi*, silver coins, were not available, even wages started being paid in *quattrini*, including those of textile-workers.⁴²

In spite of the progressive debasements it suffered, partly due to the monetary policy of the Florentine government that prized the value of the gold coin over others, the Florentine *quattrino* was still of higher standards than the Pisan one.⁴³ Hence, as happened before with the *piccioli*, so with the *quattrini*, and, as a result of the concurrence of Gresham's law, Pisan *quattrini* invaded the markets of Florence. The invasion was further accentuated by the increase of commercial relations with Pisa after the trade agreement signed between the two cities in 1370. During the two years that followed the agreement, there was an "actual" invasion of foreign *quattrini* and *piccioli* of lower quality.⁴⁴ A series of measures in the following years, including some of the monetary policies introduced with and after the *Ciampi* revolts, attempted to stop that flow, as well as the fall in value of small coins, and to resume the minting of Florentine small coins.

In 1371, a commission created to search for possible solutions to stop the disappearance of local coins, and the invasion of foreign ones, proposed devaluating and debasing both the *quattrino* and the *picciolo*.⁴⁵ The devaluation (18% of its value) plus the wide use of the coin at that time led to massive remintings of *quattrini*, multiplying the number of these coins in circulation.⁴⁶ This contributed to widening the distance between the

⁴¹ See Spufford, *Money and Its Use in Medieval Europe*., pp. 329-30. The *quattrino* in particular was first coined in Florence in 1332, and equaled 4 denari, here its name. See Bernocchi, 1979, p. 16.

⁴² Spufford speaks of the wages of the gardeners in the Florentine hospital of Santa Maria Nuova in 1370s and even of Florentine prostitutes in 1398 being paid in *quattrini*. Data from La Roncière (1974) and G. Brucker (1971), *Ibid.*, pp. 330 & 333.

⁴³ "As the chronicler Giovanni Villani relates, the *lanaioli*, whenever there was a shortage of money, induced the government to debase the silver currency without disturbing the gold florin." de Roover, "Labour Conditions in Florence around 1400: Theory, Policy and Reality.", p. 305. In 1347, the *quattrino* was debased, passing to be made of basically copper (2 onces of silver for 10 of copper). Its weight was also reduced in a 15% (from 0,21 grs. in 1332 to 0,1781 in 1347). Mario Bernocchi, *Il Sistema Monetario Fiorentino E Le Leggi Del Governo Popolare Del 1378-1382* ([Prato]: Edizioni del Palazzo, 1979)., pp. 16-19.

⁴⁴ The Comune of Florence denounced in 1371 the invasion of *piccioli* from Pisa and neighboring countries (from "surrounding and neighbouring places," "*locis circumstantibus et vicinis*,"). Bernocchi, *Le monete* (I, 150)); and data from de la Roncière in: Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria.*, pp. 197, 202.

⁴⁵ The *picciolo* was debased (both its alloy and weight worsened), and the *quattrino* devaluated (its weight fell to the 0,1474 grs.). Bernocchi, *Il Sistema Monetario Fiorentino E Le Leggi Del Governo Popolare Del 1378-1382.*, pp. 20-21. The table given by Pagnini, based on the registers of the *ceca* in Florence, shows the continuation of that falling trend from 1371 to 1417. Pagnini, *Della Decima E Di Varie Altre Gravezze Imposte Dal Comune Di Firenze: Della Moneta Della Mercatura De' Fiorentini Fino Al Secolo Xvi.*, Tavola I (p. 269) As Cipolla states, the measure, however, was paradoxical, because it meant to revalue the actual coins but devalueate the money of account in which those coins were based. Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria.*, p. 209.

⁴⁶ Although we do not know the actual volume of *quattrini* in circulation (the data series of the *ceca* are not complete) 40% of the new pieces coined during the 21 registered months between 1372 and 1375 were *quattrini*.

value of the *quattrino* and that of the *fiorino*, the gold coin, which had been progressively revaluated in terms of lower coins all throughout the second half of the 14th century. If in the second quarter of the century one florin was worth 186 *quattrini*, in 1371 it traded for 195 *quattrini*, and in 1378-80 as many as 225 *quattrini* were traded for one single florin.⁴⁷ In terms of the silver coin, the *soldi*, which had become by then a mere coin of reference, the *fiorino* went from a value of 68 *soldi* in 1371-1372 to 75 *soldi* in 1375.⁴⁸

The salaries of the wool-workers were being paid in copper coin, which means that the purchasing power of their wages was decreasing proportionally to that of the coin.⁴⁹ The wool industry was the dominant manufacturer in Florence at that time and employed one-third of the population.⁵⁰ During the second half of the 14th century, the wool and cloth manufacturers, the *lanauoli*, part of the major arts or guilds of the city, played an important role in the government. Since they paid labour with *quattrini* and sold the manufactured woolen products in *fiorini*, they received increasing returns thanks to the progressive relative loss in value of the copper coin in terms of the gold coin.⁵¹ Cipolla already explained that the divide between the two, gold and copper, paralleled circuits reflected in social divisions and parties in government, with major arts on the side of the gold coin, and minor arts on that of copper.⁵²

And a total of 9.688.352 *quattrini* where minted between 1-5-1373 and 31-10-1373 (compare the figure with the 31.217 *quattrini* minted in the 5 months between 1-11-1351 and 30-4-1352). See Bernocchi, *Il Sistema Monetario Fiorentino E Le Leggi Del Governo Popolare Del 1378-1382.*, p. 30; and Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria.*, pp. 203-07 (using figures from de la Ronciere (*Florence*) and also from Bernocchi (*Le monete*, vol. I, p. 253)).

⁴⁷ Data from G. Villani, Spufford, *Money and Its Use in Medieval Europe.*, p. 333.

⁴⁸ In terms of the *lira*, unit of account, its value accounted for different amounts of actual silver if measure in *fiorini* or *quattrini*, 10.83 gr. of silver, the *lira* (pound) of florins, while a *lira* of *quattrini* comprised only 8.84. Bernocchi, *Il Sistema Monetario Fiorentino E Le Leggi Del Governo Popolare Del 1378-1382.*, pp. 22 & 33.

⁴⁹ The fall in the purchasing power of wages was due to both, the relative loss of value of the *quattrini* in relation to the *fiorino* in the money markets, and the increase in prices of basic goods in a moment of economic depression and bad crops. To this it has to be added that wages were set for 5 years, without taking in consideration inflation or the devaluation of the coin during that period. Ibid., p. 37. For data on the economic depression and increases in prices during summer 1378, see: Charles- M. de la Roncière, *Prix Et Salaires a Florence Au Xive Siecle (1280-1380)* (Roma: École Française de Rome, 1982)., 1982, p. 773.

⁵⁰ The numbers of the wool workers, about 15.000 in 1370s and 1380s, “made them a permanent threat to the industry and to the city’s security. Guild and commune cooperated to feed this laboring mass in times of famine, and also to suppress any movement to organize the workers.” Gene A. Brucker, *Renaissance Florence*, ed. American Council of Learned Societies (Berkeley: University of California Press, 1983)., p. 66.

⁵¹ G. Villani, *Cronica* (XII, 57), quoted in Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria.*, p. 178. Marchionne di Coppo Stefani, in his *Istoria fiorentina* (ed. Ildefonsiana), offers a similar picture: “Questo fu volontà degli artefici minori che si pagavano a soldi. I mercatanti vendevano a fiorini e le manifatture pagavano a soldi a così si faceva per gli mercatanti valesse assai, e specialmente per gli lanauoli e per quelli che vivevano di rendita.” Rodolico, “Il Sistema Monetario E Le Classi Sociali Nel Medio Evo.”, p. 463.

⁵² In the side of the gold defenders, there were the interest of wool producers and exporters, bankers, big merchants, usurers, doctors, jurisconsults and big landlords. Those included in the copper circuit were wool

Hence, measures and proposal to recover the value of small coins appeared only with the revolt of the *Ciompi*, or wool workers, and then the rule by the minor arts, manufacturers and artisans related to the sphere of copper circulation, who were in power between September 1378 and January 1382. Indeed, when the wool-workers revolted in July and August 1378, in the so-called “*tumulto dei Ciompi*,” the fall in the purchasing power of the *quattrini* was one important factor in the revolt.⁵³ According to the data given by Bernocchi, at the time of the revolts the *fiorino* had increased 15% in value over the *quattrini* in respect to 1371, only seven years earlier, and almost 20% in comparison with the situation at the middle of the century.⁵⁴ In fact, the reduction of the value of the gold coin in respect to the small coin was one of the first measures introduced July 20-21, during the short period that the *Ciompi* were actually in power.⁵⁵ The rate of the florin was set back to the value it had in 1373: 68 *soldi* (lb. 3 s. 8 d. 0).⁵⁶ The *provvisioni* attempted not only to set but also to fix the rate of exchange between the gold and the small coin.⁵⁷ The measure however did not

workers and mass of the population in general, shopkeepers and artisans. Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria.*, p. 166.

⁵³ The so-called *Ciompi* revolts were a series of uprisings of the wool-workers (*Ciompi*) against their masters, joined by members of the minor guilds and other groups of discontent artisans, during the months of July and August 1378. It was enhanced by the economic crisis of the industry and previous conflicts in June and the political turmoil of that spring. It led to the creation of three new guilds (*Arts*) that came to form part of the government of the city. Of them, only two (the Guild of Dyers and the Guild of Tailors, *tintori* and *farsetti*) remained in the new government that took over again in September 1378 (led by a coalition of merchants, industrialists and artisans in the words of Brucker) and finally abolished the guild of the *Ciompi* (*Arte dei Ciompi* or of *del Popolo minuto*) the most numerous. See *Cronache e memoria*, ed. Scaramella; Rodolico's *Democrazia* and Brucker's *Florentine Politics*, quoted in de la Roncière, *Prix Et Salaires a Florence Au Xive Siecle (1280-1380)*, n. 1 & 2, pp. 771-72. Brucker, *Renaissance Florence.*, pp. 47 & 67; And Gene A. Brucker, *Florentine Politics and Society, 1343-1378* (Princeton: Princeton University Press, 1962), pp. 336-397. A summary of some of the huge literature on the topic can be found in: Guidubaldo Guidi, *Il Governo Della Città-Repubblica Di Firenze Del Primo Quattrocento* (Firenze: Leo S. Olschki Editore, 1981), p. 181, n. 1. and in Alessandro Stella, *La Revolte Des Ciompi : Les Hommes, Les Lieux, Le Travail*, ed. Christiane Klapisch-Zuber (Paris: Editions de l'Ecole des hautes Etudes en sciences sociales, 1993), 1993, pp. 17-42. That the fall in the purchasing power of the copper coins played a role in the revolts is an argument supported by, first, Rodolico and then Bernocchi, Cipolla and de la Roncière: “*les ouvriers de la laine auraient été indignés par ce superprofit de leurs patrons. Mais ce superprofit ne les gênait pas directement. La hausse de l'or les lésait surtout dans la mesure où, avec les espèces déclassées de leur salaire, ils avaient à payer des objets ou des services dont le prix était libellé en métal jaune.*” de la Roncière, *Prix Et Salaires a Florence Au Xive Siecle (1280-1380)*, n. 2, p. 772.

⁵⁴ See Bernocchi, *Il Sistema Monetario Fiorentino E Le Leggi Del Governo Popolare Del 1378-1382.*, p. 22.

⁵⁵ Other economic demands were the reduction of taxes, the guarantee of the grain and bread supply at low prices, and the softening of the regulation and level of debt they suffered. See de Roover, “Labour Conditions in Florence around 1400: Theory, Policy and Reality.”, pp. 310-11.

⁵⁶ It meant to reduce the value of the gold coin a 9.3% (if the ratio of 1971 would be applied it would have been necessary to reduce it a 13.1%), it was “fair” in words of Bernocchi. Bernocchi, *Il Sistema Monetario Fiorentino E Le Leggi Del Governo Popolare Del 1378-1382.*, p. 32.

⁵⁷ The text, published by Bernocchi says: “*Che inoltre nella città, nel contado e distretto di Firenze, ogni fiorino d'oro di giusto peso, di conio fiorentino, sentenda che debba valere e valga e possa e debba essere cambiato a tre lire e soldi otto di fiorini piccolo a quattrini fiorentini e non oltre. E da parte di veruna persona non possa né*

succeed; it was not enough to impose a fixed rate by law, and the value of the *fiorino* in the markets remained as it was.⁵⁸

After the abolishment of the *Ciampi*, however, the government of minor art guilds that followed in September 1378 attempted to implement some of the “popular” demands that had risen with the *Ciampi*, including further measures to revalue the small coin.⁵⁹ Given the failure of the formula introduced in July, in January 1379 a new standard was imposed to reduce the value of the florin to only 70 *soldi* (or to lb. 3 s. 10 d. 0).⁶⁰ The provision taken gave three months to put into practice the necessary measures to achieve that value and, taking into consideration the possibility that this would not work either, proposed an alternative as well: to change the nominal value of the *quattrini* from 4 to 3.5 *denari*, that is, to devalue it.⁶¹ The actual purpose of this latter measure is, however, controversial. It could have been to recognize officially the fall in value of the small coin as Cipolla comments, or,

debba il predetto fiorino esser cambiato oltre la quantità detta di moneta di quattrini, in nessuna maniera.” (21 July 1378, Provv. 67, cc. 1 e 12 v.). Ibid., p. 23.

⁵⁸ According to data from Rodolico and Bernocchi, the rate remained in the 75 *soldi*. See Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria.*, p. 208.

⁵⁹ In spite of the successive changes introduced in the system of votes and the representation of public offices, the two new guilds of the *tintori* and *farsetti* plus the existing 14 Minor guilds, dominated over the 7 *Arti maggiori*, and contributed to the continuation of some of the so called “populistic” ideas of the *Ciampi*. Guidi, *Il Governo Della Città-Repubblica Di Firenze Del Primo Quattrocento.*, pp. 193 & 197-99; And Bernocchi, *Il Sistema Monetario Fiorentino E Le Leggi Del Governo Popolare Del 1378-1382.*, p. 28. In addition to revisioning the ratio between gold and silver coinage, other policies in this line were the institution of direct taxation, the revision of the *contado* tax structure, and the reduction and eventual abolition of the *monti*. From Barbadoro’s *Finanze* and Rodolico’s *Ciampi*, Quoted in Brucker, *Florentine Politics and Society, 1343-1378.*, p. 96. See as well de Roover, “Labour Conditions in Florence around 1400: Theory, Policy and Reality.”, p. 308.

⁶⁰ It meant to reduce the value of the gold coin a 6.7%, a more humble reduction than the one proposed by the *Ciampi*. Bernocchi, *Il Sistema Monetario Fiorentino E Le Leggi Del Governo Popolare Del 1378-1382.*, p. 32.

⁶¹ “*Che i signori Priori delle Arti e il Gonfaloniere di giustizia del popolo e del Comune predetto e due parti di loro, anche se gli altri siano assenti e non richiesti, possano e debbano provvedere in ogni modo e maniera che vogliamo o che abbiamo creduto opportune, da qui a tutto il mese di marzo prossimo venturo, che il fiorino d’oro secondo il peso fiorentino valga e si riduca al valore e al cambio di tre lire e soldi dieci di moneta di quattrini, o meno; e così, o per valor minore possa e debba esser cambiato e speso nella città e contado e distretto di Firenze. Che se dentro il detto tempo i predetti Signori Priori e Gonfaloniere ed i loro predetti college non abbian fatto o provveduto in modo che le cose contenute in questo presente capitolo abbiano ed ottengano pieno effetto, passato poi il detto mese di marzo, qualsiasi quattrino si intenda che valga tre denari e mezzo di un altro denaro piccolo fiorentino e non di più; e per tale valuta ogni quattrino possa e debba da parte di ognuno essere speso e accettato sotto pena di venticinque lire di fiorini piccolo e a ciascuno che spenda o riceva di più, ogni volta tal valuta venga per ogni quattrino tolta e pagata al Comune di Firenze.*” (24 January, 1379, Provv. 67, cc. 114 e 120). Published in Ibid., pp. 24. There is a little error in the text published by Bernocchi, since the text says it is from January 1378 (“*Nell’anno dell’Incarnazione del nostro Gesù Cristo millesimo trecentesimo settantesimo ottavo*”). Referring to an additional document, Rodolico mentions that the latter measure was to be introduced if the value of the florin raised 3 *lire* and 15 *soldi*. Rodolico, “*Il Sistema Monetario E Le Classi Sociali Nel Medio Evo.*”, p. 468.

what is basically the same, to adapt its value to its effective acquisition capacity, as Bernocchi states.⁶²

None of these actions seemed to have the desired outcome and in October 1380, a new measure was studied and presented to the Comune of Florence.⁶³ This time the monetary proposal did not focus on altering the rates between coins, or the nominal value of any of them, but instead it recommended reducing directly the amount of small change in circulation; the *Priori* of the guilds and the *Gonfalonieri* of justice of the people and the city were responsible, under penalty of 1.000 florins of gold each, for bringing to the mint and melting down *quattrini* worth 2.000 gold florins every two months [rotation time they were in office] for the following eight years, starting January 1381.⁶⁴ That meant melting down a total of 420.000 *quattrini* every 2 months during that period.⁶⁵ In order to manage the different

⁶² Bernocchi, 1979, p. 33. In Cipolla's logic, since the *denaro* was a money of account, the measure would finally materialize in the workers receiving more coins (*quattrini*) for their salaries than before. Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria.*, p. 209. Since wages were set in *soldi*, also a money of account, and 20 *soldi* were 240 *denari*, if before workers received 3 *quattrini* per *soldi* (1 *quattrini* = 4 *denari*), with the new rate they received 3,43 *quattrini* per each *soldo* of its wage.

⁶³ The provision was prepared by the *Priori*, the *Gonfaloniere* of justice, *Gonfalonieri* of the popular society (*società del popolo*) and the 12 Good Men of the Comune of Florence, for the shake of "*l'utilità pubblica e il bene commune dei mercanti e degli artefici della città e del Comune di Firenze*," (24-26 of October 1380, *Provv.* 69, cc. 158 e 159v-160), quoted in Bernocchi, *Il Sistema Monetario Fiorentino E Le Leggi Del Governo Popolare Del 1378-1382.*, p. 25. It may be a result of the council (*consiglio di richiesti*) created in May 1380 to propose "il bisogno della moneta," according to the chronique of Marchionne di Coppo Stefani. Quoted in Guidi, *Il Governo Della Città-Repubblica Di Firenze Del Primo Quattrocento.*, p. 198.

⁶⁴ "(...) i magnifici e potenti uomini signori Priori delle arti e Gonfaloniere di giustizia del popolo e del Comune di Firenze, riflettendo con maturo esame e dopo aver deliberato solennemente su tutti questi fatti scritti sotto e su i loro particolari, tra loro e insieme con l'ufficio dei dodici buonomi del Comune di Firenze, riuniti infine tra tutti in numero sufficiente nel Palazzo del popolo di Firenze, dopo aver premesso e fatto un diligente scrutinio, ed ottenuta la decisione con le fave bianche e nere secondo la forma degli ordinamenti del detto Comune, (...), provvidero e ordinarono e deliberarono il dì 24 del mese d'ottobre dell'anno del Signore 1380, nella quarta indizione, che durante il tempo di otto anni continui da iniziarsi il giorno primo del mese di gennaio prossimo venturo, i signori Priori delle arti e il Gonfaloniere di giustizia del popolo e Comune predetto, quelli che tempo per tempo fossero, possano, anzi sotto pena qua sotto scritta debbano e siano obbligati, evidentemente ogni ufficio di priorato e di gonfalonierato di giustizia, e tutti i Priori e Gonfalonieri, durante il loro tale ufficio e prima che esso sia venuto a fine, fare fondere e ridurre alla materia anteriore mista di rame e d'argento, e ciò realmente ed efficacemente, la moneta e il denaro dei quattrini del conio del detto, fino alla soma ed alla quantità ed al valore di **duemila fiorini d'oro**; [e ciò si faccia] in qualsivoglia periodo di due mesi, cioè al tempo di qualsivoglia ufficio di priorato o gonfalonierato di giustizia sussistente nel detto tempo di otto anni, in maniera che in qualsivoglia di quei periodi di due mesi dei detti otto anni, in modo reale ed efficace, la quantità di due mila fiorini d'oro di quattrini e di moneta di quattrini di conio fiorentino e tanta quantità di detta moneta di quattrini che sia di detta valuta, intendendo bene, venga fusa e distrutta e ridotta realmente e efficacemente alla prima materia di rame e d'argento, [e tutto ciò] prima della fine di qualsivoglia di tali uffici, durante il suddetto tempo di otto anni." (*Provv.* 69, cc. 158 e 159v-160, 24-26 of October 1380). See the rest of the provision published in Bernocchi, *Il Sistema Monetario Fiorentino E Le Leggi Del Governo Popolare Del 1378-1382.*, pp. 25-28. See also Bernocchi, *Le Monete*, vol. I, p. 89, n. 2. Quoted (with Rodolico) in Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria.*, p. 210.

⁶⁵ Bernocchi says 42.000. Bernocchi, *Il Sistema Monetario Fiorentino E Le Leggi Del Governo Popolare Del 1378-1382.*, p. 33. However, if we take the limit rate of a florin being 3 lire and 10 *soldi*, which is 70 *soldi*, (each *soldi* being 12 *denari*) 840 *denari*, or (1 *quattrini* being 4 *denari*) 210 *quattrini*; 2.000 fiorini then make

measures to be taken and meet those criteria, the law gave powers to the mentioned high officials over those in charge of the mint, the house of the coin, and in related positions in the Comune of the city.⁶⁶ The manner, whether by force or by trade, in which the small coins were to be taken out of the market is not defined in the proposal. It is probable that the *quattrini* to be retired were bought by the population in exchange for other coins, paid by the Comune, since the metal resulting from melting down the coins, or the revenues from selling it, was taken back to the House of Treasure.⁶⁷

The proposal was approved with an amendment that tried to limit it by determining that the melting would be put into practice only if the value of the *fiorino* had surpassed 70 *soldi*, which indeed was the level previous measures had attempted to achieve.⁶⁸

Since the value of the *fiorino* was 75 *soldi*, the provision was put into practice and the melting of *quattrini* started, as planned, in February 1381, the operation being repeated six times till December 1381. The melting was interrupted not because the *fiorino* had reached the 70 *soldi* limit, but because abolishing the provision of October 1380 was one of the first measures taken by the major guilds when they returned to power in January 1382, ending the

420.000 quattrini being destroyed every two months. In 8 years it would mean the destruction of more than 20 millions of *quattrini*.

⁶⁶ “Anche, che per fare le cose anzidette e per ciascuna di loro, i detti Priori delle arti e Gonfaloniere di giustizia (...) possano una volta e più, ed ogni volta che vogliono, imporre, ordinare e comandare e dare qualsiasi incarico ai Signori della Zecca o della Moneta della città di Firenze, su ogni cosa e su alcune e in quel modo che intorno a ciò vedranno che sia opportuno, imponendo e infliggendo anche ai detti Signori della Zecca pene pecuniarie da pagarsi al detto commune in tutti quei modi e come piacerà agli stessi signori Priori e Gonfaloniere di giustizia. Anche, per eseguire nel modo migliore le cose predette e scritte e ciascuna di loro, i signori Priori e Gonfaloniere di giustizia possano, durante il detto tempo di otto anni, in qualsiasi tempo e ogni volta che vogliano, ordinare e dare le commissioni che essi crederanno opportuno agli ufficiali della diminuzione del monte del detto Comune di Firenze o a quei quattro cittadini fiorentini, popolari e guelfi, che avranno eletti con l’incarico di eseguire le predette cose.” (Prov. 69, cc. 158 e 159v-160, 24-26 of October 1380). Ibid., p. 27.

⁶⁷ “Anche, che tutto quanto e qualsiasi cosa venga raccolta in qualsiasi modo da ciò che vien fuso o dal prezzo di ciò che viene fuso e sarà stato fuso e ridotto alla predetta materia, in occasione di tutte le cose predette, venga ai tesoriери e possa e debba essere pagato ai tesoriери della Camera del Comune.” (Prov. 69, cc. 158 e 159v-160, 24-26 of October 1380). Ibid., p. 27.

⁶⁸ The proposal was approved on the 26th with 167 votes against 82 in the Council of the *Popolo*, and then presented to the general Council of the Commune. Before the final votes, Benedetto degli Alberti, who seems to be one of the aristocratic financiers or bankers in the government, and held an intermediate position between the interests of the Minor and Major guilds, introduced the amendment, which says: “Ugualmente, nel detto anno ed indizione, il giorno 26 del detto mese di ottobre. Nel consiglio del Signor Podestà e del Comune di Firenze fu approvata la delibera fatta nel consiglio del Signor capitano e del popolo fiorentino a dì 24 del detto mese di ottobre con questa detrazione e modifica fatta ad essa o da essa provvigione fatta, cioè che quando ed ogni volta sarà stato deliberato da parte dei Gonfalonieri delle società del popolo e dei dodici buoni uomini del Comune predetto che il fiorino buono di conio fiorentino valga lire tre e soldi dieci e non oltre o meno di quattrini e moneta di quattrini di conio fiorentino, allora e solo in quel caso e solo nel tempo contenuto in tale deliberazione e per il quale è stato deliberato...” (Prov. 69, cc. 158 e 159v-160, 24-26 of October 1380). Ibid., pp. 27-28. For the votes of proposal and amendment see: Archivio di Stato di Firenze, *Libri Fabarum*, 40, c. 378 & 379v (Provvisioni, 69, c. 160v & 176-176v), quoted in Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria.*, pp. 210-11.

“popular” period.⁶⁹ As to the outcome of the aborted measure, during the first months of 1381, the value of the *fiorino* experienced indeed a preliminary decline as a result of the melting down of copper coins. Its rate passed from 73 *soldi* in February to 70,3 in August. However, after that month, the florin recovered to 72 *soldi* in December. So it seems that already by the end of the year the policy was not producing the intended results.⁷⁰ Be that as it may, the fact is that the new government considered it dangerous for the florin and abolished it and reintroduced a monetary policy supportive of the gold coin.⁷¹

Regarding the copper melted, in total more than two and a half million *quattrini* were destroyed.⁷² However, there is no information about what happened further or where that metal went. Bernocchi only refers to *quattrini* being reduced (to bullion), destroyed or melted down (“*fuse e ridotte a pasta*” or “*ridotte a metallo*”), but there is no comment about what was done with the remaining copper and silver, other than that the bullion or money resulting from selling it was taken to the officials of the Comune of Florence.⁷³ It is dubious that it would have been reminted again, because there would have been traces of it, or it would have raised concerns among those who introduced the provision of 1380. It could have been sold to merchants trading with copper. There is evidence of copper being traded from Europe to the Middle East at the end of the century, so that is a possibility. True or not, the possibility that Florentine copper ended up in Alexandria links with the case of small change inflation as we will see next.

⁶⁹ Hence, the 13th of February 1382 it was established that: “*la provvisione e riforma dei consigli del popolo e del Comune di Firenze pubblicata nel mese di Ottobre dell’anno del Signore millesimo trecentesimo ottantesimo e confermata nel consiglio del Signor Podestà e del Comune il giorno ventisei del detto mese, la quale in effetto dispone di fondere in tempo delle monete di Quattrini del conio fiorentino si capisca che sia e debba essere cassata revocata e annullata.*” Bernocchi, *Il Sistema Monetario Fiorentino E Le Leggi Del Governo Popolare Del 1378-1382.*, p. 35. Probably to compensate from this measure, as Rodolico argues, and to stop the inflow of small coins from other cities, the Balìa forbade as well the circulation of foreign small coins, unless they were of similar alloy and quality than local ones. Rodolico, “*Il Sistema Monetario E Le Classi Sociali Nel Medio Evo.*” p. 467.

⁷⁰ Cipolla explains the recovery of the florin rate again in Florence with the possibility of a new inflow of *quattrini* from Pisa. Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria.*, p. 212.

⁷¹ After a decade of monetary stability, the declining trend of the copper coin continued till trading 240 *quattrini* by each florin at the beginning of the 15th century. Spufford, *Money and Its Use in Medieval Europe.*, p. 333

⁷² Bernocchi, and then Cipolla, give account of the amount and value of *quattrini* melted from February to December 1381, following the prescriptions of the provision. Bernocchi, *Il Sistema Monetario Fiorentino E Le Leggi Del Governo Popolare Del 1378-1382.*, pp. 34-35. Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria.*, pp. 210-212. Taking again the rate of 1 florin being 210 *quattrini* (that is the limit value set in the amendment), the *quattrini* destroyed in 6 months would have been 2.520.000 *quattrini* (420.000 per month)

⁷³ “*Pur non possedendo i dati completi delle singole operazioni, sappiamo che tra il 13 e il 20 Febbraio 1381, alla presenza di quattro cittadini “popolari e guelfi” e dei Signori della moneta, per opera di Zenobi Bartoli fonditore sono stati e furono fusi lb. 7300 di Quattrini del conio fiorentino a ciò destinati dai funzionari della camera del Comune di Firenze.*” Bernocchi, *Il Sistema Monetario Fiorentino E Le Leggi Del Governo Popolare Del 1378-1382.*, p. 34.

Alexandria and Cairo suffered an invasion of black money, made of copper, at the end of the 14th century and beginning of the 15th century. The biggest amount of copper arrived at the end of the 1390s and generated important periods of inflation, of billon or “small change inflation.” In this context, there were calls as well to reduce the amount of small change circulating in the markets, which may be found in the chronicles and writings of an Egyptian jurist and historian, working for the administration of the markets, al-Maqrīzī (1364-1442). We will see that context and his economic proposals to end the monetary inflation in Cairo in the following section.

III.2. The case of *fulūs* (1392-1395) in Mamlūk’s Egypt⁷⁴

During the late 14th century, the situation of monetary markets in Egypt was quite similar to that in Italian cities. As mentioned, not only Europe but also the Near East suffered a “liquidity crisis” during the last quarter of the 14th century until the first decades of the 15th century. Changes in the Trans-Saharan gold trade routes caused gold prices to increase sharply in Egyptian markets, attracted European gold and generated more pressure on the limited silver stocks, increasing further the silver price.⁷⁵ The shortage of silver had two direct consequences: first, the successive debasements of the silver coin, whose silver content was progressively decreasing until it became basically made of copper; and second, the monetization of copper. Copper coins, *fulūs*, which had been reintroduced in Egypt during the Ayyūbids (564-648/1169-1250) solved the tension between silver and gold rates.⁷⁶ Silver disappeared as a money of account, with the value of the gold coin, dinar, being registered

⁷⁴ The complete period to be covered will be from the beginning of the first reign of Barqūq, 1382, whose policies are considered in al-Maqrīzī’s *Ighāthah* as the main causes of 1405 Egyptian crisis, to the year 1438, when al-Maqrīzī does the last corrections to the manuscript of his treatise of coins, the *Shuḍūr*.

⁷⁵ Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy*, p. 1191. In addition to the trade deficit with the Far East, the shortage of silver was due as well to decreasing mining in Central Asia, plus the normal processes of erosion, destruction and hoarding of metal. See data from Day, “The Great Bullion Famine of the Fifteenth Century,” pp. 6-12; and Shoshan, “From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt,” pp. 100-102. Also a recopilation of the different reasons (high level of military expenses, luxury consumption of imported goods, thesaurization, etc.) for the shortage of precious metals and the general scarcity of coins may be found in Ashtor, *Les Métaux Précieux Et La Balance Des Payements Du Proche-Orient À La Basse Epoque*, p. 99-108.

⁷⁶ As mentioned, in most parts of the Islamic world, copper coins, *fulūs*, had disappeared from circulation by the 10th century, although reintroduced during the Ayyūbid dynasty, conforming almost the 34% of coins by them, according to Jeanette Wakin’s survey. Bacharach, based on the study of Hassanein Rabie on the Egyptian financial system, mentions that there were a number of moments where both Ayyubids and Bahri Mamluk governments caused small crises by “flooding the market with new copper issues and manipulating exchange rates for their own benefit.” Jere L. Bacharach, “Circassian Monetary Policy: Copper,” *Journal of the Economic and Social History of the Orient* XIX, no. I (1976), pp. 33 & 36 (n. 19-20).

instead in terms of a new copper money of account, the *dirham fulūs*.⁷⁷ And again, a copper coin, being a light coin, but more importantly, being unregulated by Islamic jurisprudence or tradition, made manipulation of the currencies, their weights and exchange rates easier.

Islamic jurisprudence restricted the status of legal tender or currency, *naqd* pl. *nuqūd*, to gold and silver coins. Only those currencies had “liberating” power, to pay taxes, debts, set contracts or other regulated payments, according to the established standards and the relative exchange rates of the gold and silver monies of account. The copper coin, *fals* (*fulūs* in plural), did not have the same character as currency. Its standards of weight and alloy, as well as its relation to the other coins were not set. Small copper coins were used only for small payments, usually exchanged by tale, like a token.⁷⁸ The use of copper developed, in particular, during the second half of the 14th century with the Mamlūk dynasties. The first Mamlūk dynasty, the Baḥrī (1250-1382), increased the minting of small copper coins, a policy that multiplied during the second Mamlūk dynasty, the Circassian or Burjī (1382-1517), opening a period that has been called “the age of copper.”⁷⁹

⁷⁷ Prices of dinar announced in Cairo in 1416. Bacharach, "The Dinar Versus the Ducat.", p. 82

⁷⁸ *Fulūs*, token currency passed by tale, not by weight and which “emission was left to the discretion of governors and local authorities, without any centralized control”. Udovitch, “Fals”, EI 2nd, II, 769. Quoted in —, “Circassian Monetary Policy: Copper.”, p. 33.

⁷⁹ There has been a whole debate in the literature on monetary issues in the Middle East about the 15th century being or not an “age of copper”, in the sense of copper being the dominant medium of exchange in the area. It derives from Michel de Bouard’s numismatic studies in 1939, who defined the period as an “age of copper,” conception supported by the research of Ashtor, Udovitch and Balog, among others. Bacharach attempted to dismiss the general belief that Circassian Mamluk Egypt and Syria was an “age of copper,” however, he ended his article recognizing that the said shortage of copper was nothing but a relative increase in its demand (in a footnote), which indeed shows that it was broadly used. Shoshan later comes to clarify Bacharach’s fault in order to prove the actual shortage of copper. The actual shortage seems to refer to the 1420-30 years (beginning in 1418); and it does not rest importance to the fact that from 1403 to 1429 prices, wages, and all kind of transactions were officially set in the copper dirham of account, as we will see. In spite of copper coins being debased since the turning of the century, the big debasements took place during the 1420-30. In 1404, 1408 and 1412 copper coins of a considerable weight were still issued. Shoshan, “From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt.”, pp. 106, 108-109; Bacharach, “Circassian Monetary Policy: Copper.”, p. 41. Indeed, in 1410 and 1412, there were attempts to raise the nominal value of copper from 5 or 6 to 12 dirham fulūs but they failed; their failure being a proof that the market price tended to lower it, so, copper was not necessarily scarce by then. We may conclude that there was a relative shortage of copper during the first half of the 15th century but mainly from the second decade on. If we take the value of the copper money of account as a sign of the scarcity or abundance of copper coins, we see that the actual “shortage” of copper took place from 1425 to 1450. It is from 1425 that the nominal value of the actual copper coins in relation to copper units of account increased consistently, devaluating the copper unit of account. See changes in the value of the raṭl of copper coins in terms of dirham fulūs, or “copper dirham of account,” collected by Shoshan (p. 114). He broads it a bit to the 1420s but the sharp increase takes place in 1425, since in 1423 the value is still low and there is no data between 1417 and 1423 or for 1424. Be it what it may, for the period that is of interest here, that is the last decades of the 14th century and first years of the 15th century, both Bacharach and Shoshan recognize that the conditions of an age of copper met: copper coins being in abundant supply and exchanges being in terms of copper. Bacharach, “Circassian Monetary Policy: Copper.”, pp. 38, 40 and 48. Shoshan, “From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt.” pp. 104 & 109.

For its copper supply, Egypt depended basically on external markets in the Maghreb but particularly in Europe.⁸⁰ European exports of copper to the Middle East, both to Egypt and Syria, are recorded since the time of the Crusades. There is evidence of Genovese shipments carrying copper to Syria by 1200, of Andalusian ships exporting it to Egypt from England and Ireland by the middle of the century, and of Venetian shipments bringing it from Germany and Austria during the 14th century, and later from Hungary, Serbia and Bosnia.⁸¹ The search for new silver veins, and the exploitation of mixed lodes of silver and copper, increased the production of copper.⁸² Although copper production in other European mines declined, leading to an increase in copper prices, during 1399-1412 the increase in gold and silver prices was such that it entailed a relative appreciation of copper and stimulated the production of it.⁸³ Hence, while silver flows from Europe to the Middle East decreased because of the bullion famine, the trade of copper increased as a result of the comparative advantage Europe had in copper, given the difference of copper prices between the two shores.⁸⁴ As a result, from the mid-14th century, copper became a major European export to Egypt.⁸⁵

⁸⁰ Ashtor, *Les Métaux Précieux Et La Balance Des Payements Du Proche-Orient À La Basse Epoque.*, pp. 55-56. Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy.*, pp. 1150-1153.

⁸¹ Byrne, 1920; quoted by Day, "The Great Bullion Famine of the Fifteenth Century.", p. 7. Ashtor based on Ibn Sa'id's writings, referring also to central European and Italian archives, and to the documents of the *fondaco dei tedeschi* in Venice (for the years 1333, 1337, 1356, 1363 y 1383, as published by G. M. Thomas in 1874). The travel recounts of Lionardo Frescobaldi explain his ship being charged of copper in the way from Venice to the Holy Land in 1384. Ashtor speaks of copper being exported also from France and Spain to the Middle East during the first half and the middle of the 15th century. See: Ashtor, *Les Métaux Précieux Et La Balance Des Payements Du Proche-Orient À La Basse Epoque.*, pp. 55-57. Blanchard suggests, as well, that at least from 1406 markets of the northern littoral of the Mediterranean were exporting copper to Alexandria and the Maghreb al-aqsa area as result of their increasing copper supplies and falling prices (p. 1517). During 1370-1415, copper was also passing through the Black Sea and Constantinople to the Mediterranean. The supply of copper in central and Western Europe seem to have been somehow warranted by the appearance of new mining centres and the substitution of old ones during the fourteenth century. For details of those circuits see: Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy.*, pp. 1500-17 (For Genoese trade of copper in the fourteenth century see p. 1512). Martin Elbl has given evidence of the Venetian/Balearic trans-Saharan copper trade through the documents of Datini's archives between 1394-1410. See Martin Elbl, "From Venice to the Tuat: Trans-Saharan Copper Trade and Francesco Di Marco Datini of Prato," in *Money, Markets and Trade in Late Medieval Europe: Essays in Honour of John H.A. Munro*, ed. Lawrin Armstrong, Ivana Elbl, and Martin M. Elbl (2007)., according to Karine van der Beek's review in EH.NET, available in the web at: <http://eh.net/bookreviews/library/1258> (07/09/2007).

⁸² Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy.*, p. 1503.

⁸³ Effect of a favourable conjuncture during 1395-1415, when high silver and copper prices combined with low lead prices which was used to separate silver and copper through newly introduced techniques in central Europe. See *Ibid.*, pp. 1505-06.

⁸⁴ Ashtor, *Les Métaux Précieux Et La Balance Des Payements Du Proche-Orient À La Basse Epoque.*, p. 55; Bacharach, "Circassian Monetary Policy: Copper.", 35; and Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy.*, 1193. Given the mentioned low prices copper had in Europe, it worked as if the region had a comparative advantage in copper. Even if the trade of gold was

At the end of the century, with the silver famine, the need for new sources of revenue and liquidity became more extreme. Zahir Barqūq (1382-89; 1390-99) the first sultan of the second Mamlūk dynasty, the Circassian, who came into power in 1382, made an attempt to introduce lead coins in 1385.⁸⁶ However, that experiment did not work. By the end of Barqūq's reign, silver had almost disappeared from circulation.⁸⁷ Given that the population seemed to prefer copper to lead coins, copper became definitively the alternative to compensate for the lack of silver at the turn of the century.⁸⁸

Imports of copper from Europe, or "the land of the Franks," registered a peak between 1392 and 1395.⁸⁹ The record of numismatic evidence for copper in Mamlūk Egypt is not complete for certain periods, however, for the last two decades of the fourteenth century, the second reign of Barqūq, that numismatic record of copper coins is huge. According to that evidence, in contrast with previous periods, during Barqūq's reign copper coins may have been issued in the hundreds of thousands.⁹⁰ In addition to the existing mints in Cairo and

profitable, given the relative increase in the gold-silver ratio in Egypt in comparison to Europe, the differences in the value of copper prices was such that Europe "specialized" in copper and copper was the European main export during those years.

⁸⁵ Spufford also recount how during the late years of the bullion famine even black money was disappearing from Europe: "In 1424 officers of the King of France caught up with a convoy of 29 mules and horses travelling from Rodez to one of the Geneva fairs. It was illegally carrying money out of the kingdom, not gold or white silver, but nearly 3 tonnes of black money!" R. H. Bautier quoted in Spufford, *Money and Its Use in Medieval Europe*, p. 360. For more evidence about copper in Egypt at the turn of the 15th century, see note 90.

⁸⁶ Circassian sultans reigned in Egypt and Syria from 1382 to 1517 A.D. They correspond to the second dynasty that took power during the Mamlūk rule, called the *Burjī* in contrast to the first Mamlūk dynasty, the *Bahrī*, in power since 1250 A.D. See William Popper, "Egypt and Syria under the Circassian Sultans 1382-1468 A. D.: Systematic Notes to Ibn Taghrī Birdī's Chronicles of Egypt," (Berkeley: University of California Press, 1955), p. 3. Before becoming sultan, but already in the practical management of the state (the sultan was then the Bahrī Hājī II), Zahir Barqūq had tried to introduce heavy copper coins in 1381. It was an attempt to create an intermediary coin between the silver coin, the *dirham*, and the copper coin, the *fals*. Bacharach based on Balog. See Bacharach, "Circassian Monetary Policy: Copper," p. 36.

⁸⁷ Indeed the end of his reign marks the starting of a halt in the import of silver (from 1399 to 1412). Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy*, pp. 1195-1200. Contemporary authors registered the disappearance of silver result of both the thesaurization of silver and the diminution of silver flows. See al-Maqrīzī or al-Qalqashandī, who recorded that the importation of silver from Europe stopped after 1398. Ashtor, *Les Métaux Précieux Et La Balance Des Payements Du Proche-Orient À La Basse Époque*, p. 44.

⁸⁸ For a summary of the different developments in the management, measures and values of copper coins during those two centuries as registered in al-Maqrīzī's *Ighāthah*, see Eustache's note and tables in al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd]," p. 183-85.

⁸⁹ Based on al-Maqrīzī as well. Blanchard, 2005, p. 1193. Eustache, using Mayer and Heyd's studies, explains how the copper was arriving from Chiprus by the intermediation of Genoa, hence "the country of the Franks" that al-Maqrīzī speaks about. Ibid., p. 183.

⁹⁰ "from the thousands of coins from this era that have survived to our own, it has been estimated that they may have been issued in the hundreds of thousands." Schultz using evidence from Bacharach, "The Ducat in Fourteenth Century Egypt" p. 99. Warren C. Schultz and Carl F. Petry, *The Monetary History of Egypt, 642-1517* (Cambridge: 1998). pp. 336-37. Bacharach denies the existence of substantial numismatic evidence that could support the charges against Barqūq's *ustādār*, however later he affirms that the official imported copper in

Alexandria, another mint opened in 1391 in the latter, during Barqūq's second reign, where copper coins were also minted.⁹¹

We then find, as in the Latin European context, coins of different denominations circulating in different, although permeable, circuits. Egyptian economy was divided between transactions with gold (ducat and dinar), used in overseas trade, for spices, textiles and luxuries, and transactions with copper (*fulūs*), used in the domestic market, for salaries and some payments to the sultanate.⁹² Those were the years of the big flows of gold coins from Genoa and the competition between the ducat and the dinar to dominate commercial transactions in the East Mediterranean. In competition with the ducat, Mamlūk's sultans attempted to protect the dinar and maintained its purity and weight. So, in order to protect the gold coin, silver and copper coins were debased.⁹³ In terms of weight, Schultz states, from the sparse existing numismatic evidence, that copper coinage had been struck to weight standards until the end of the 14th century, but from the last decades of that century on the stability of the weight of the copper coin was completely altered.⁹⁴ If in the middle of the 14th century the *fals* weighed 4,25 grams, it weighed less than one gram half a century later.⁹⁵

In addition to popular revolts against the manipulation of the coin and taxes, different authors among the "*intelligentzia*," like Ibn Taimiyah and contemporary scholars mentioned in the previous chapter, stood against the debasement of the coin made by the Mamlūks. Among these writers, Taqī ad-Dīn al-Maqrīzī (Cairo, 1364-1442), pointed also to copper and the excess of small copper coins in circulation, as opposed to the circulation of silver, which

exchange of silver and minted large quantities of copper. Bacharach, who, as mentioned, denies the whole Circassian period to be "the age of copper," confirms indeed that the years from the end of the Bahrī Mamlūks to the reign of sultan Faraj (1399-1412) were characterized "by an increasing supply of copper coins." Bacharach, "Circassian Monetary Policy: Copper.", p. 33 & 35.

⁹¹ From Balog's numismatics studies, which give evidence of copper being minted in Alexandria during Barqūq's second reign, although similar copper coins were already minted in the first reign. Eustache's note in al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 183.

⁹² Shoshan, "From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt.", 105.

⁹³ See Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy.*, pp. 1194-95; and Bacharach, "The Dinar Versus the Ducat." The value of the debased *dirham* (with a 50-60% of silver) passed from 1 dinar being exchanged for 20 dirhams all through out the century, to 25 in the 1380s and 30 at the end of the century. Using the al-Maqrīzī's *Sulūk*, Ashtor, *Les Métaux Précieux Et La Balance Des Payements Du Proche-Orient À La Basse Époque.*, pp. 41-43, 106. "the *dirham*, for the first time in two centuries, became scarce and was debased to make the existing silver go further." See Bacharach, "Circassian Monetary Policy: Copper.", p. 34.

⁹⁴ An average of 3 grams up to 1357-58, and from then until 1391-92 a mean weight of 4.3 grams. Schultz and Petry, *The Monetary History of Egypt, 642-1517*. p. 337.

⁹⁵ Shoshan using data from al-Maqrīzī's *Sulūk*. See Shoshan, "From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt.", p. 52.

had basically disappeared, as the main source of the economic crisis of the country.⁹⁶ In a short treatise written in 1405 in Cairo, the *Ighāṭah al-‘Ummah bi kashf al-Ghummah* (“Helping the nation by investigating the depression”), al-Maqrīzī’s words are bitter and point to the corruption and mismanagement of both religious elites and administration, those who were taking advantage of the problems and confusion stemming from the petty change. He does not accuse any person in particular, but, instead, goes back to the times of the previous sultan, father of the one then in power. Al-Maqrīzī made Barqūq’s administration responsible for the widespread use of copper coins and the new period of inflation that was desolating the Egyptian economy and eroding the purchasing power of rents.

Inflation had indeed multiplied in Egypt at the turn of the century. In constant gold terms the general price level of grain rose about 20%. Not only basic goods were affected, since the prices of cotton and other fabrics, a major form of wealth among middle-class merchants and *‘ulama*, or experts in religious science, multiplied by 3 times.⁹⁷ Shoshan has made the calculations for both the copper money of account (*dirham-fulūs*) and copper prices to overcome the debasement factor. Between 1402 and 1404, according to his data, there was an increase of about 200% in the prices of wheat, barley and broad beans, in terms of *dirham-fulūs*, and of 240% in terms of copper prices, although they dropped in 1405, to rise again in 1407.⁹⁸

Al-Maqrīzī held several positions in both academia and the administration, as professor, judge and *muḥtasib*, or market supervisor, of Cairo.⁹⁹ As previously commented, the *muḥtasib* was the official responsible for, among other functions, checking that prices and rates were set without abuse or manipulation by any parties concerned, including the control of the alloy of coins.¹⁰⁰

⁹⁶ Lapidus takes the years 796/1394 and 798/1396 and again between 805-808/1402-05, 813/1410 and 818/1416 as the periods of the major crises. For a description of the economic crisis, decline in agricultural and craft production, and inflation of prices in the last two decades of the 14th to the turn of the new century, see: Ira M. Lapidus, *Muslim Cities in the Later Middle Ages* (Cambridge, Mass.: 1967), pp. 28-31.

⁹⁷ “Probably vastly more in terms of copper money available to most of the people.” Ibid., p.31.

⁹⁸ Boaz Shoshan, “Money Supply and Grain Prices in Fifteenth-Century Egypt,” *The Economic History Review* 36, no. 1 (1983), p. 55.

⁹⁹ ‘Abd al-Fatāḥ ‘Āshūr, editor of the 1990’s Arabic edition, details the different employments al-Maqrīzī had, which included as well, while in its “youth”, that of scribe in the Bureau of Documents of the Citadel (*Muwaqqi’ bi diwān al-inshā’ bil-qal’ah*) – one of the two scribes or clerks under the “confidential secretary” (*kātib as-sirr*) of the vizier, in the Financial-Secretarial civil administration of the *Mamlūk* regime. The Bureau was in charge of reading the Sultan official correspondence, supervising and assigning it. ‘Āshūr, “Taqdīm.”, p. 9; for the details about the Mamlūk administration see: Popper, “Egypt and Syria under the Circassian Sultans 1382-1468 A. D.: Systematic Notes to Ibn Taghrī Birdī’s Chronicles of Egypt.”, p. 97.

¹⁰⁰ Ahmad ‘Abd ar-Rāziq, “La Hisbah Et Le Muhtasib En Egypte Au Temps Des Mamlûks,” *Annales Islamologiques* 13 (1977). 124. “*Le muhtésib a la surveillance sur l’hôtel de l’étalonnage.*” From al-Maqrīzī in

Al-Maqrīzī was *muhtasib* in Cairo for the first time during the last months of Barqūq's reign, starting on March 11, and ending on August 4, 1399, being placed in the office of *ḥisbah* only two months after the latter's death.¹⁰¹ This is the time when the administration of the new sultan, al-Naṣīr Faraj (1399-1405, 1405-1412), son of Barqūq, led by Yashbak ash-Sha'abānī, Grand Treasurer, and Ibrāhīm Ibn Ghurāb, Controller of the Army and of the Privy Funds, introduced the monetary reform in favour of the gold coin.¹⁰² In order to restore the value of the dinar they set a new exchange rate between the canonical dirham and the canonical dinar, trading 30 silver coins for one gold coin, in contrast to the rate of 24 that was in use in 1390, and 20 in 1388.¹⁰³ This placed the Egyptian gold-silver ratio over the European one, attracting the Venetian ducats that entered into the already-mentioned competition with dinars. According to Bacharach this was partly due to the Faraj's need for gold to buy the support of his troops in the midst of the diverse internal struggles that destabilized his reign.¹⁰⁴ The value of the dinar in terms of the silver coin kept increasing and contributed, as mentioned, to making silver flow out of the country.¹⁰⁵ Both silver and copper coins were debased, which reflects the previously-mentioned fact that copper coins became lighter at the turn of the century. Prices increased and the purchasing power of copper continued to fall, affecting the population badly.¹⁰⁶

However, al-Maqrīzī's indictments in the *Ighāṭah* do not point towards ash-Sha'abānī and Ibn Ghurāb, but, as said, they place the causes of the crisis some years earlier, at the end of Barqūq's reign. Neither does al-Maqrīzī blame directly the sultan but rather his *'ustādār*, a kind of major-domo (literally, master of the house, *'ustādh ad-dār*) Maḥmūd Ibn 'Alī (d.

the *Khitāt*, Taqī ad-Dīn Ahmad ibn Alī al-Maqrīzī, *Traité Des Monnoies Musulmanes* (Paris: Fuchs, 1797)., p. 52.

¹⁰¹ Between 11th rajab of 801 (11-03-1399) and the 1st dūl-Hijja of 801 (04-08-1399), followed by another three-month period from January 1400. 'Abd ar-Rāziq, "La Hisbah Et Le Muhtasib En Egypte Au Temps Des Mamlūks.": 115-215, 125-127. Barqūq died on the 20th of June 1399 (15 Shawwāl 801). Bacharach, "The Dinar Versus the Ducat.", p. 80.

¹⁰² The former was the patron and benefactor of the latter. Ibn Taḡhī Birdī, 1954, pp. 2 and 121.

¹⁰³ "Physical punishment was threatened for anyone who resited the order, and great hardship resulted" ('Alī Pāshā, XX, 141.15) in Popper, "Egypt and Syria under the Circassian Sultans 1382-1468 A. D.: Systematic Notes to Ibn Taghrī Birdī's Chronicles of Egypt (Continued).", pp. 47 and 52.

¹⁰⁴ Jere L. Bacharach, "Monetary Movements in Medieval Egypt, 1171-1517," in *Precious Metals in the Later Medieval and Early Modern Worlds*, ed. J. F. Richard (Durham, NC: Carolina Academic Press, 1983)., p. 168.

¹⁰⁵ In 1401 the dirham was quoted at 40 to the dinar (data from al-'Ayni) then it lowered again to 25 (data from Ibn Taghrī Birdī) but later again rose to 30. Popper, "Egypt and Syria under the Circassian Sultans 1382-1468 A. D.: Systematic Notes to Ibn Taghrī Birdī's Chronicles of Egypt (Continued).", pp. 52-53.

¹⁰⁶ "For the population the remedy was more disastrous than the disease." Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy.*, p. 1195.

1397).¹⁰⁷ Al-Maqrīzī makes Ibn ‘Alī the person particularly and mainly responsible for importing and minting copper in great quantities and overflowing the Egyptian markets of Alexandria and Cairo with *fulūs*.¹⁰⁸ Mayer would date those events to 1391.¹⁰⁹ Al-Maqrīzī would reiterate his accusation of Ibn ‘Alī several times in the *Shudhūr*, a treatise on Egyptian monetary history written some years later.¹¹⁰

Who was this official? Maḥmūd Ibn ‘Alī or Maḥmūd al-Ustādār was an emir of the first class with Sultan Barqūq.¹¹¹ In 1382-83, he served in the palace of the sultan and by 1388 was major-domo, Ustādār.¹¹² When in 1390 Barqūq came to power for the second time, Maḥmūd al-Ustādār was appointed counselor of the treasury, to return to the office of major-domo some months later until 1395.¹¹³ By 1392, his son received the vice-regency of Alexandria from Barqūq.¹¹⁴ However, by the time al-Maqrīzī accused him, Maḥmūd al-Ustādār had not only lost his position but his life, being condemned to death by Sultan Barqūq himself in 1396.¹¹⁵ Maḥmūd al-Ustādār had lost the sympathy of Sultan Barqūq in 1395, being arrested with his son and his secretary at the end of that year.¹¹⁶ Having the mints of

¹⁰⁷ Major-domo: “grand master of the house”, emir of the first class in charge of the entire administration of all supplies of the Sultan’s household that under Barqūq and Faraj became also chief financial official. Popper, “Egypt and Syria under the Circassian Sultans 1382-1468 A. D.: Systematic Notes to Ibn Taghrī Birdī’s Chronicles of Egypt.”, p. 93. Eustache’s note in al-Maqrīzī and (trans.), “Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-‘Uqūd Fi Dhikr Al-Nuqūd].”, p. 180.

¹⁰⁸ Bacharach mentions that not only al-Maqrīzī but other Egyptian historians also put the blame on him, as Ibn al-Furāt, Ibn Ḥaajar al-Asqalānī or Ibn Iyās. Bacharach, “Circassian Monetary Policy: Copper.”, p. 35.

¹⁰⁹ al-Maqrīzī and (trans.), “Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-‘Uqūd Fi Dhikr Al-Nuqūd].”, p. 180.

¹¹⁰ We will see both texts with more detail later. He does so too in his chronicle on Mamlūk dynasties, the *Sulūk*. See Ashtor, *Les Métaux Précieux Et La Balance Des Payements Du Proche-Orient À La Basse Epoque.*, p. 58.

¹¹¹ Bacharach and Ashtor, as did Ibn Taghrī Birdī, speak of him as Jamāl ad-Dīn Maḥmūd al-Ustādār, the major-domo (d. 799/1397). Bacharach, “Circassian Monetary Policy: Copper.”, pp. 35-36. Bacharach, “Monetary Movements in Medieval Egypt, 1171-1517.”, p. 168. Ashtor, *Les Métaux Précieux Et La Balance Des Payements Du Proche-Orient À La Basse Epoque.*, p. 105.

¹¹² “Civilian from Alexandria who rose in the military hierarchy until he reached the position of the high steward (*ustādār*) under Barqūq in 790/1388,” Broadbridge, “Royal Authority, Justice, and Order in Society: The Influence of Ibn Khaldūn on the Writings of Al-Maqrīzī and Ibn Taghrībirdī.”, p. 237. Eustache comments that Maḥmūd Ibn ‘Alī was intendent in Barqūq’s palace since about March 1382 or March 1383. al-Maqrīzī and (trans.), “Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-‘Uqūd Fi Dhikr Al-Nuqūd].”, p. 180. Ibn Taghrī Birdī registers him being already major-domo when arrested after Barqūq fell out of power in 1389 after the latter’s first sultanate. Abu al Mahasin Yusaf Ibn Taghrībirdī, *History of Egypt, 1382-1469 A.D.*, trans. William Popper (Berkeley: University of California Press, 1954)., p. 61. He must be the amīr-ustādār Jamāl ad-Dīn Maḥmūd al-Baghghās whose daughter Martel-Thoumian says Jamāl ad-Dīn Yūsuf al-Bīrī (also to be “al-Ustādār” in 1401) married. Martel-Thoumian, *Les Civils Et L’administration Dans L’état Militaire Mamlūk (Ixe/Xve Siècle).*, p. 103.

¹¹³ The 14th of February and then 15th of May 1390. Ibn Taghrībirdī, *History of Egypt, 1382-1469 A.D.*, pp. 115 and 117.

¹¹⁴ Ibid., p. 133.

¹¹⁵ Barqūq ordered him to be put to death under torture in July 1396, his death being registered about 1397. Ibid., p. 151.

¹¹⁶ Şafar, 798 (15 Nov.-13 Dec. 1395). Ibid., p. 150.

Cairo and Alexandria under his control and with his son as viceroy in the latter it was probably easy for Maḥmūd al-Ustadār to import copper through that port city and then mint it during the time he was in office, 1392 to 1395, which is indeed the period of copper imports that Blanchard highlights.¹¹⁷ Ibrāhīm Ibn Ghurāb, one of the instigators of the subsequent reform defending the gold coin, was Maḥmūd's secretary by then, and it seems that it was he who led the internal conspiracy that ended Maḥmūd al-Ustadār's career. Ibn Ghurāb revealed to Barqūq the fortune Maḥmūd al-Ustadār was amassing and was granted in exchange an office, beginning in this way his own ascending career in government.¹¹⁸ Maḥmūd was tortured until he finally disclosed the large amounts of money he had been hoarding, and his properties were seized in 1397, the year he died in prison.¹¹⁹

Hence, by the time al-Maqrīzī writes and accuses Maḥmūd al-Ustadār of having flooded the market with copper coins, this official was already discredited and had paid for his transgressions with his life. Not stopping here, al-Maqrīzī's indictments use Maḥmūd al-Ustadār as a scapegoat in order to denounce that from his time and after Barqūq's death, the use of copper had continued and spread. It turns out, indeed, that from those same officials who had raised the plot against Maḥmūd the major-domo, large amounts of copper were confiscated as well in 1398.¹²⁰

In fact, by 1400 all kinds of prices, including those of foodstuffs ceased to be defined in silver and became quoted in copper units of account, that is *dirham min al-fulūs*, *dirham-*

¹¹⁷ Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy*, p. 1194.

¹¹⁸ About Ibrāhīm Ibn Ghurāb, converted Copt, it seems to have accumulated quite a level of power in the Mamlūk administration, combining several high offices (*nāzīr al-ghaysh* and *nāzīr al-ḥāṣṣ*, working also as *Kātib as-sirr*) from end of dū l-qa'da 798 (1396) to 12 ghumādā II 807 (1404). See: Martel-Thoumian, *Les Civils Et L'administration Dans L'état Militaire Mamlūk (IXe/Xve Siècle)*, pp. 93, 117, 455-56 & 459. By the time of Barqūq death, he was controller of the army and by 1403, after surmounting some political troubles, he arrived to the position of Ustādār. Ibn Taghribirdi, *History of Egypt, 1382-1469 A.D.*, pp. 5 and 80.

¹¹⁹ It seems that he had indeed accumulated a huge fortune during his time in office, since when, in 1397, Barqūq seized all his properties they reached a value of 3 millions of gold bullion, plus jewellery and other objects. Ibn Taghribirdi, *History of Egypt, 1382-1469 A.D.*, pp. 133 & 140. Value cited also from different chronicles in Ashtor, *Les Métaux Précieux Et La Balance Des Payements Du Proche-Orient À La Basse Epoque*, p. 105. Bacharach adds that he could not have been able to get such a fortune without the support of the sultan Barqūq. Betrando de Mignavelli in his biography of Barquq says that the latter gave "free rein" to his official to collect as much money as possible for the treasury. In Walter J. Fischel, "Ascensus Barcock," *Arabica*, VI (1959), 170. Bacharach, "Circassian Monetary Policy: Copper.", p. 35-36.

¹²⁰ al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 119. Ibrāhīm Ibn Ghurāb led the complot in alliance with al-Ṭablāwī, turning the sultan Barqūq against the latter in 1398, to whom also big amounts of copper and gold were confiscated in Sha'bā 800/ April 1398. Bacharach, "Circassian Monetary Policy: Copper.", p. 35 (n. 17). Also commented in Ashtor, based on Ibn Duqmāq's *Jawāhir as-Sulūk*, Ashtor, *Les Métaux Précieux Et La Balance Des Payements Du Proche-Orient À La Basse Epoque*, p. 105.

fulūs.¹²¹ In 1403, the chief Shāfi'ī Qāḍī, Jalāl al-Dīn al-Balqīnī (d. 824/1421) ordered that everything, even contracts, debts, rents, land records, and slave and marriage contracts were to be recorded in terms of *dirham fulūs*.¹²² In a context where the value of copper coins was decreasing, while debts, taxes and main transactions were set according to gold and silver standards of the money of account, the fact that taxes and debts could be paid in small copper coin solved the liquidity problem but increased the instability of rents, worsening the position of debtors and the distribution of rent. Hence, the former system of reference based on the silver money of account had collapsed, leading to the imposition of a new money of account, the copper dirham of account or *dirham fulūs*. The actual coins of copper, *fulūs*, light and debased, were traded by weight instead by tale, in accordance to a measure of weight, the *raṭl*, a kind of pound, which was valued in terms of the copper dirham of account: a *raṭl* of coins of copper, that is around 459 gr. of copper coins, was worth 6 *dirhams fulūs*.¹²³

During those first years of the 15th century, ash-Sha'bani and Ibn Ghurāb had risen within the structure of power, ash-Sha'bani achieving the positions of executive secretary and then administrator of the government, and Ibn Ghurāb the position of *Ustādār* or major-domo. However, conflicts with another faction of the sultan's Mamlūks, which led to an actual battle in Cairo in the middle of August 1404, forced ash-Sha'bani and Ibn Ghurāb and their followers to seek refuge among the emirs in Syria.¹²⁴ This put an end to the administration that introduced the monetary reform revaluating the gold coin and devaluating the copper.

¹²¹ Or trade dirhams as Bacharach terms them. Bacharach, 1976, p. 39. There was also some confusion in the literature about this money of account about whether it was an actual coin or not. It initially referred to a real copper coin of a dirham weight (about 2,975 grams). Then with the declining quality and weight of the copper coin it related to a bigger number of copper coins that complete the weight of a standard silver dirham. It finally became a money of account, fact supported by Gilles Hennequin clarified and Meloy and Schultz supported. Gilles Hennequin, "Monnaie Ou Monnayage? En Relisant Le Traité De Monnaies D'al-Maqrizi" (Paris, 1979), p. 320; John L. Meloy, "Copper Money in Late Mamluk Cairo: Chaos or Control?," *Journal of the Economic and Social History of the Orient* 44, no. 3 (2001), p. 293. Shoshan calls it "copper dirham of account" Shoshan, "From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt," pp. 104 and 112.

¹²² Schultz and Petry, *The Monetary History of Egypt, 642-1517*, p. 337. Recounted by Bacharach who uses data from al-Maqrīzī's *Sulūk* (III, 117). Bacharach, "Circassian Monetary Policy: Copper," p. 37. Shoshan explains how it was only the recognition to an earlier reality. Shoshan, "From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt," pp. 108-09.

¹²³ The measure was introduced on July 24, 1403. Al-Maqrīzī's *Sulūk* (III, 1112) quoted in Bacharach, "Circassian Monetary Policy: Copper," p. 39. Eustache comments that the weight of the *raṭl* in Cairo at the beginning of the 15th century was instead of 422,064 gr. In Damascus it was 1.760 gr, closer to the ancient *raṭl* of silver of Makka, which weighted 1.470 gr. According to al-Maqrīzī, in the *Ighāthah*, the passing of copper coins by weight is recorded since the times of the previous Mamlūk dynasty, already by 1296. al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (I) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd]," pp. 149 and 183.

¹²⁴ Ibn Ghurāb and his brother had been arrested and then released again in June 1403. Then in October, Ibn Ghurāb was invested with the offices of *Ustadar* (major-domo) and controller of the army. Ibn Taghrī Birdī recounts the intrigues and confrontations between the different factions that led to this outcome and the officials

The chronicles do not record whether this revolt and the change in the administration had anything to do with the monetary situation and the dissatisfaction of the population, but the fact is that the new administration that followed, from August 1404 to June 1405, introduced a shift in the monetary policy: the revaluation of the copper money of account in terms of the gold money of account. The value of the copper money of account had achieved 300 *dirhams fulūs* per dinar and then was lowered to 100, resulting in significant losses among the merchant community.¹²⁵

Al-Maqrīzī was back in the position of *muhtasib* at that time, in April 1405, but again his time in office ended shortly, in May.¹²⁶ A little later, in June 1405, when Sultan Faraj had left Cairo to fight an insurrection from a group of emirs in Syria, led again by ash-Sha'bānī and his allies, the value of copper coins in relation to the copper money of account was reduced. If in 1403 the *raṭl* of copper coins was set in 6 *dirham fulūs*, in June 1405, its value was 4 *dirham fulūs*.¹²⁷ That means a loss of 33,3% in the purchasing power of those copper coins which the population possessed and used daily. The measure was absurd because it raised the number of coins people received for their salaries, set in *dirham fulūs*, but the acquisition capacity of those coins was lower. It seems that, according to al-ʿAynī, people rioted and, when Faraj returned to Cairo in mid-June, he restored the value of the copper coin to 6 *dirham fulūs* per *raṭl*.¹²⁸ Also upon his return to Cairo, Ibn Ghurāb, despite having been on the side of the rebels, managed to make peace with the sultan and was appointed to the position of Counselor of the Treasury by June 18, 1405.¹²⁹

and emirs in each side. Ibn Taghribirdi, *History of Egypt, 1382-1469 A.D.*, pp. 79-82. Broadbridge points also to Ibn Ghurāb having problems managing the financial demands of the administration as source of these conflicts. Broadbridge, "Royal Authority, Justice, and Order in Society: The Influence of Ibn Khaldūn on the Writings of Al-Maqrīzī and Ibn Taghribirdi", p. 235.

¹²⁵ Blanchard terms it as a "populist policy" and suggests that if the dissatisfaction of the population did not play a role in the fall of Yashbak, at least the opposition party was aware of the tensions in society. He quotes Ibn Taghrī Birdī, but the Egyptian historian does not give but a recount of the power struggles among the Mamluk factions. Ibn Taghribirdi, *History of Egypt, 1382-1469 A.D.*, pp. 84 and 89; Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy*, p. 1196.

¹²⁶ ʿĀshūr, "Taqdīm.", p. 9. ʿAbd ar-Rāziq, "La Hisbah Et Le Muhtasib En Egypte Au Temps Des Mamlūks.", 115-178. Also Allouche, *Mamluk Economics : A Study and Translation of Al-Maqrizi's Ighathah.*, pp. 3 & 13.

¹²⁷ Ibn Taghribirdi, *History of Egypt, 1382-1469 A.D.*, p. 89; Bacharach, "Circassian Monetary Policy: Copper.", p. 39.

¹²⁸ Al-ʿAytī, IV, 220, quoted in Bacharach, "Circassian Monetary Policy: Copper.", p. 39. There were riots as well among the Mamlūks of the sultan because of the high prices of foodstuffs and clothes. They forced sultan Faraj "to give them their pay, clothing allowances, and fodder for their horses." Based on al-Maqrīzī's *Sulūk* (3:1113), Broadbridge, "Royal Authority, Justice, and Order in Society: The Influence of Ibn Khaldūn on the Writings of Al-Maqrīzī and Ibn Taghribirdi", p. 235.

¹²⁹ Ibn Taghribirdi, *History of Egypt, 1382-1469 A.D.*, p. 92.

Ibn Ghurāb then achieved the position of confidential secretary on September 10, 1405. He maintained the position when Sultan Faraj, as a result of new revolts by opposing Mamlūk factions, was forced out of power from September 21 until November 28, 1405, being temporarily replaced by his brother, al-Malik al-Manṣūr ‘Abd al-‘Azīz ibn Barqūq.¹³⁰

When Sultan Faraj returned to power he restored again the administration of Yashbak ash-Sha’bānī and Ibrahīm Ibn Ghurāb, the first in the position of commander-in-chief of the armies, and the second in the position of head of the council, raising also his status from administrator to emir, although Ibn Ghurāb would die shortly after on March 11, 1406.¹³¹ During that period, the policy protecting gold was established again, with the consequent debilitation of the silver coin as we saw, and of the copper money of account.¹³² There were attempts later to fix the official rate of the silver coin in respect to gold, to stop its devaluation, but without success.¹³³ Hence, the policy of defending the value of the gold coin continued to have a pervasive effect on copper currency. Although after Ibn Ghurāb’s administration changes were introduced and gold coins debased, the value of the *dirham fulūs* continued to fall in respect to the dinar: the exchange rate increased from 150 to 250 *dirham fulūs* in 1407, to 264 in 1410, and 300 in 1412.¹³⁴ In 1410, the copper coin was debased, mixed with iron, lead and little pieces of other kinds of material, both in its alloy and when exchanged in bags. In Syria also a debased silver coin was circulating in 1410, although a more favourable bi-metallic rate favored resuming of silver exports from Venice to Syria by that time.¹³⁵

¹³⁰ Ibn Taghrī Birdī recounted that in the midst of the conflict between the different Mamluk factions al-Faraj leaves power and hides in Ibn Ghurāb’s house in the mid September 1405. Faraj had appointed Ibn Ghurāb as confidential secretary only some days earlier, in September the 10th. Ibid., pp. 94-98 and 120. Meloy says that Faraj was substituted in power in August. Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī’s *Ighāthah and Shudūr*", p. 190.

¹³¹ Ibn Taghrībirdī, *History of Egypt, 1382-1469 A.D.*, pp. 125 and 127.

¹³² Which passed from changing 65 dirham fulūs per dinar in 1402, to 140-150 per dinar in June 1405, 250 dirham fulūs per dinar between October 1405 and March 1406; and later to 260 in 1416. Popper, "Egypt and Syria under the Circassian Sultans 1382-1468 A. D.: Systematic Notes to Ibn Taghrī Birdī’s *Chronicles of Egypt* (Continued).", pp. 53, 61-64.

¹³³ Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy.*, p. 1197.

¹³⁴ By then Nasīrī dinar, the one minted by Jamāl ad-Dīn Yūsuf al-Bīrī. Ibid., p. 1197.

¹³⁵ Ibid., p. 1200 (based on Bacharach),. European production of silver had recovered at the beginning of the century, and for a short period of time, thanks to the supply of Serbian, Bosnian, and Austrian mints. By 1407 there was sufficient silver for 1396 Venice’s restriction to export silver being abolished, which contributed to the fact that by 1412 silver was present in big quantities in Syria in the form of Venetian grossi, called there ‘*bunduqi*. See Spufford, *Money and Its Use in Medieval Europe.*, pp. 350-354.

At the end of Faraj's reign, some changes took place in the monetary policy. In 1411, the Chief Qāḍi of Cairo ordered that *fulūs* be collected and exchanged for dinars.¹³⁶ The following year, the minting of silver coins was resumed, first by the Abbasid Caliph in Cairo, al-Adil al-Musta'in, who was proclaimed sultan shortly after Faraj's death, and then by al-Muayyad Shaykh, who took power before the end of 1412. In 1412 there was also an attempt to revalue the copper coin in terms of the copper money of account, increasing the exchange rate from 6 to 12 *dirham fulūs* to the *raṭl*.¹³⁷ In 1415, dirhams were minted again in Cairo, thanks to the silver al-Muayyad Shaykh collected as booty in Syria after defeating the viceroy Nawrūz, who had taken over there after Faraj's death in 1412.¹³⁸

So, in 1415, after about 15 years almost without silver currency, al-Muayyad Shaykh had resumed the minting of silver coins with the introduction of a new dirham: the dirham *Mu'ayyadī*.¹³⁹ During that time, al-Maqrīzī wrote another treatise on monetary issues, the *Shudhūr al-'Uqūd fī dhikr al-Nuqūd* ("Pearls of the divine commands regarding money"). The new treatise was basically an extension of the chapter on the history of Egyptian coinage that already appeared in the *Ighāthāt*, written in 1405. This time al-Maqrīzī praises al-Muayyad Shaykh's reintroduction of the silver coin in Egypt.

In 1418 it was declared that prices had to be set back in dirhams, in an attempt to return to the gold-silver system of reference, as al-Maqrīzī proposed.¹⁴⁰ In line with this, in 1416 and 1418, copper coins were again taken out of circulation in exchange for dinars, even against the will of the people.¹⁴¹ Since the use and importation of silver introduced tensions

¹³⁶ In this way they collected 50.000 *raṭls* of coppers, close to 25 tons. al-Maqrīzī (*al-Sulūk*, IV, 183). Shoshan, "From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt.", p. 111.

¹³⁷ Ibn Ḥajar al-'Asqalānī, (II, 35r), quoted in Bacharach, "Circassian Monetary Policy: Copper.", p. 39.

¹³⁸ Schultz and Petry, *The Monetary History of Egypt, 642-1517.*, p. 336. Antoine Isaac Silvestre de Sacy and Taqī ad-Dīn Ahmad ibn Alī al-Maqrīzī, "Traité De Monnoies Musulmanes [Shudūr Al-'Uqūd Fī Dhikr Al-Nuqūd]," *Magasin Encyclopédique* II & III, no. 6 & 1 (1797)., p. 49; Saiful Azhar Rosly and Emad Rafiq Barakat, "The Economic Thought of Al-Maqrīzī: The Role of the Dinar and Dirham as Money" (Kuala Lumpur, 2002)., 134; Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī's Ighāthah and Shudūr"., 198.

¹³⁹ The existence of silver for al-Muayyad Shaykh to resume its minting is due to both Tamerlane's invasion (which brought big quantities of silver to Syria from central Asia) and the resuming of European silver exports, which made possible already for Emir Nawrūz to mint dirhams of higher silver content in Syria by 1412. See Ashtor, 1971, pp. 44-45. Also from Ashtor and al-Maqrīzī's *Sulūk*, Shoshan, "From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt.", 102-03.

¹⁴⁰ From al-Maqrīzī's *Sulūk*, Ibid., p. 103.

¹⁴¹ The figure seems exaggerated but, according to al-Maqrīzī, in 1416, copper of 80.000 dinars of value was collected, which equals over 3 tons of gold. Al-Maqrīzī (*al-Sulūk*, IV, 349-50); and, in 1418, Mu'ayyad Shaykh told a group of emirs to exchange 20.000 dinars for copper money; Al-Maqrīzī (*al-Sulūk*, IV, 427-28). Both quoted in Shoshan. Shoshan also suggests that copper currency had such a widespread use that people preferred it to gold or other coins. Ibid., pp. 106 & 111. Lapidus recounts that in 1418 in a quarter of Tripoli people stoned the governor when he tried to collect money at an unfair exchange ratio between gold and copper. Lapidus, *Muslim Cities in the Later Middle Ages.*, p.150.

in the bi-metallic ratio, attracting gold again, Shaykh's administration even reduced the difference between the gold and the copper coin, setting the value of the dinar in 250 *dirham fulūs*, while it was 280 in the markets.¹⁴²

In fact, the silver period did not last long. Given the devaluation of the silver Venetian coin by 1417, those measures introduced by Shaykh's administration did not manage to attract more silver after that year, and silver coins once again became scarce and debased.¹⁴³ In 1422, the silver coin was of such a low alloy that it was ordered to be traded by weight instead of by tale.¹⁴⁴ Counterfeit coins of only 60% silver dominated the markets of Syria and Egypt.¹⁴⁵

Moreover, those were the years where the ducat and the dinar were in competition for the monetary dominance of the eastern Mediterranean. Since 1416-17 European gold had resumed flowing into Syria and Egypt and the Venetian ducat came to dominate Middle Eastern markets, until 1426. At that time, Sultan al-Malik al-Ashraf Barsbāy (1422-1438), successor of Al-Muayyad Shaykh, coined a new "Ashrafi" dinar, of slightly lower value in the market than the ducat, which managed to push the ducat out of circulation and stop European gold imports.¹⁴⁶ Then, Sultan al-Ashraf Barsbāy also ordered in 1430 the minting of a new silver coin, the Ashrafi dirham, with 94% silver, forcing the moneychangers and merchants to change and use them in the fixed exchange rates.¹⁴⁷ The copper money of account was still used as reference, the value of the Ashrafi dirham being 20 *dirham fulūs* and that of the dinar, 280 *dirham fulūs*. To avoid pressure to resume gold imports, the administration attempted to devalue the Ashrafi dinar in terms of the copper money of account.¹⁴⁸ Having set the gold and silver coins, however, Barsbāy, in 1435 forced the recall of copper coins at a price of 18 *dirham fulūs* to the *raṭl*, to then be bought back by the people at 24 *dirham fulūs* per *raṭl* of

¹⁴² Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy.*, p. 1202.

¹⁴³ The dirhams were half of their original weight by 1422. Ibid., p. 1202.

¹⁴⁴ Ibid., p. 1203.

¹⁴⁵ The percentage of silver before Mu'ayyad Shaikh had been much lower, 33% in 1399 and 10% in 1412. Popper, "Egypt and Syria under the Circassian Sultans 1382-1468 A. D.: Systematic Notes to Ibn Taghrī Birdī's Chronicles of Egypt (Continued).", p. 54.

¹⁴⁶ Cessation of European gold imports from 1427 to 1429. Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy.*, p. 1206. Bacharach got finally to clarify how the new dinar had a relatively lower value in respect to the ducat (97% of the ducat) and so explained the fact that it turned to substitute the later because of the concurrence of "Gresham Law." See Bacharach, "The Dinar Versus the Ducat.", p. 88. See also Schultz and Petry, *The Monetary History of Egypt, 642-1517*. P. 335-36. See Spufford, *Money and Its Use in Medieval Europe.*, p. 355.

¹⁴⁷ They were assembled and forced to testify that they would do so. Taghrī Birdī (IV, p. 79) quoted in Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy.*, p. 1204.

¹⁴⁸ One Ashrafi dinar being exchanged at 230-235 dirham fulūs, as the ducat. Markets pushed it shortly back to the 280 dirhām fulūs. Taghrī Birdī (IV, p. 79) quoted in Ibid., pp. 1204-06.

new copper coins.¹⁴⁹ This meant a devaluation of the copper money of account, or revaluation of the actual copper coins, but, since it took place through a forced exchange of coins to be finally bought at a higher price, it basically meant a gain for the treasury and a loss for the population, plus a decrease in the level of liquidity.¹⁵⁰

It is at this point, that, in 1438, Al-Maqrīzī corrects a copy of the manuscript of the *Shudhūr*, only a month after the death of Sultan Barsbāy.¹⁵¹ Copper had continued to flow from Europe to the Middle East, while the copper money of account devaluated.¹⁵² The value of the silver coin, however, had been maintained since a constant flow of silver from Europe was granted, thanks to the resumption of silver production in the Balkans.¹⁵³

III.3. Measures to solve the problem of small change inflation in comparison: the case of the *quattrini* in Florence and the *fulūs* in Egypt

We have seen how different alternatives were raised to handle problems stemming from the bullion famine of the late 14th century. Cities played with the exchange rate of coins, favouring one metal coin over another, depending on their trade and monetary structure. The main instruments used to fight the famine were the devaluation of a coin in respect to others, or debasement of it, in order to reactivate minting.

In Flanders, as in France, the dukes aligned with Oresme's proposal for strong and stable money, that had become the "new orthodoxy" by the end of the 14th century.¹⁵⁴ They

¹⁴⁹ New copper coins were issued to pass by tale at 8 coins per dirham fulus and a price of 27 dirham fulūs per raṭl. Popper, "Egypt and Syria under the Circassian Sultans 1382-1468 A. D.: Systematic Notes to Ibn Taghrī Birdī's Chronicles of Egypt (Continued).", p. 70.

¹⁵⁰ The "forced" devaluation of the money of account was a practice to be repeated in following decades to take money from the population. See measure introduced in 1469: "They took [copper coinage] from the populace at [a rate of] 24 [dirhams] and issued it at [a rate of] 36 [dirhams]. Hence the population lost a third of their cash value." Chronicle of Ibn al-Ṣayrafi, quoted by Meloy, "Copper Money in Late Mamluk Cairo: Chaos or Control?", p. 315. Shoshan says that they raised the value of copper locally to avoid its drain. Be it what it may, see the devaluation of the copper money of account this represented, considering the raṭl was 6 dirham fulūs worth in 1412-1417. In 1435, a dirham fulūs equaled 8 copper coins, (Sulūk, IV, 944; Shoshan, 1982, p. 113). Shoshan, "From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt.", pp. 111-114.

¹⁵¹ See next chapter.

¹⁵² Spufford says that, during the late years of the bullion famine even black money was disappearing from Europe: "In 1424 officers of the King of France caught up with a convoy of 29 mules and horses travelling from Rodez to one of the Geneva fairs. It was illegally carrying money out of the kingdom, not gold or white silver, but nearly 3 tonnes of black money!" R. H. Bautier quoted in Spufford, *Money and Its Use in Medieval Europe.*, p. 360. Al-Maqrīzī denounces it also in the *Sulūk*, saying that in 1421 the basket of fulūs was composed of only 25% of copper, and a 20% only in 1422 (*Sulūk*, IV, 549). Bacharach, "Circassian Monetary Policy: Copper.", p. 41.

¹⁵³ Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy.*, p. 1205.

¹⁵⁴ See Chapter 2.

tried to maintain the value of the silver coin at the expense of gold. This measure, although successful in the first years, did not help to solve the bullion shortage.¹⁵⁵ The problem was stopped only when John the Fearless twice devalued the gold and silver coin between 1416 and 1418. Minting output recovered to its former levels only by 1420.¹⁵⁶ In France, since debasement was no longer effective in reactivating minting, moneyers were allowed to increase the price of silver. This devaluated the coin and led to the flow of overvalued coins from other neighbouring regions, complying with Gresham's law.¹⁵⁷ Similar processes took place in Barcelona and other parts of Catalonia.¹⁵⁸ In Aragon they also turned to devaluation of the gold coin in 1408 and in 1407 to debasement of the silver coin, the *real*, aiming to "combat the shortage of fractional money" and "to compensate for the recent rise in the price of bullion," with few results, however.¹⁵⁹ Florence devalued both its gold and silver coins although the minting of silver coins did not recover until the 1470s-80s.¹⁶⁰ Genoa also turned to debasement of the silver coin, which assured a high level of silver in circulation and compensated for the shortage of gold.¹⁶¹ Other cities, like Venice, in 1416 and 1417 introduced measures to encourage the import of silver and gold (relaxing trade controls or raising the mint price for gold and silver), and liquidity (decrees to do business on a cash basis as Bruges did in 1399), also without much success.¹⁶²

Yet, in both cases, Florence and Cairo, the proposals led, instead, to reducing the amount of small money in circulation. A series of parallelisms can be drawn indeed between the case of the *quattrini* in late 14th century Florence and the case of the *fulūs* in Mamlūk Egypt at the beginning of the 15th century, as well as between the measures and proposals that in every case were raised to solve the problems arising from an excess of petty coins.

In the two cities, large quantities of small coins invaded the internal markets while silver coins almost disappeared from circulation. The increase of small change in Florence took the form of invasions of lower-value coins from neighboring cities, while in Cairo it was the actual arrival of copper, then minted in the form of local small change, *fulūs*, which

¹⁵⁵ Day, "The Great Bullion Famine of the Fifteenth Century.", p. 16-17.

¹⁵⁶ Day based on Munro (1972), Ibid.p. 18.

¹⁵⁷ "by the spring of 1405 the kingdom (France) was inundated by nominally overvalued silver coins of Scotland, Aragon, Navarre, Savoy and Bordeaux, and overvalued gold coins from the Rhineland, Hainaut, Guelders, Liège, Metz and Avignon," with the consequent disappearance of the undervalued French crowns and *blancs*. Data from de Saulcy (1879-92) and W. Jesse (1924), in Ibid., p. 14.

¹⁵⁸ Ibid., pp. 21-22.

¹⁵⁹ C. Lozachmeur, A. P. Usher, P. Vilar, E. J. Hamilton, and Botet y Siso. Ibid., pp. 21-22.

¹⁶⁰ Ibid., p. 27.

¹⁶¹ Ibid., p. 29.

¹⁶² Papadopoli's study. Ibid., p. 31.

flooded the markets. The circulation of small coins increased but at the same time the purchasing power of this petty change was decreasing. The monetary system became basically bimetallic, composed of gold and copper coins. In a political context that protected and guaranteed the value of the gold coin, given the commercial necessities of both cities; the copper coin absorbed the inflation and monetary fluctuations, being devaluated in relation to the gold coin.¹⁶³ The copper coins were debased and the (copper) monies of account devaluated.¹⁶⁴ Given that the monetary division entailed as well a social divide, the progressive loss of value of the copper in respect to the gold coin, and the decreasing purchasing power of the small coin, generated social tensions and revolts in both cases. In the Florentine case, it led to the uprising of the minor classes in alliance with the majority of the population. In the Egyptian case, the circuit of copper expanded until it included most of the population and economic spheres of life – rents, debts and the revenues of liberal professions and jurists coming to depend also on copper. Therefore, in addition to instigating certain particular and temporal revolts among the population, the invasion of small coins also became the center of attention for different factions of the administration, being denounced by scholars as a broader and more general crisis that affected the whole country.

With the new government that the *Ciompi* revolution brought to Florence, which gave the power to those closer to the social groups whose salaries were defined in copper, a monetary reform was voted to put copper coins out of circulation and restore in this way their value in relation to the gold coin. The monetary policy of the previous government in alliance with the merchant classes had guaranteed the value of the gold coin at the expense of the copper one, leaving huge amounts of copper coins entering the city from neighbouring cities and decreasing the acquisition capacity of those salaries defined in copper terms. In Egypt, about twenty years later, certain Mamlūk administrations, led by the officials Ibn Ghurāb and ash-Sha'abānī, protected the dinar in competition with the ducat, at the expense of the silver coin, which basically disappeared. Given the lack of silver and the minting policy of certain officials, the copper coin came to be used as the main means of exchange and suffered

¹⁶³ As Cipolla explained for the Florentine case, the separation of two parallel monetary circuits, in broad terms, guaranteed the stability and value of the gold coin, used for finance and international commerce. Since the system of interior prices was defined in the copper coin, the inflationary pressures were absorbed by the copper circuit, without affecting the gold coin. Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria.*, p. 163.

¹⁶⁴ Both in 1371 in Florence and 1405 in Egypt, copper coins revaluated in respect to their monies of account. A measure that, as Cipolla mentioned, reached “absurdity.” Ibid., p. 209. Since it meant people had more money (received more coins for salaries or sales) but that money had less real value, less purchasing power, since the money of account was devaluated.

progressive devaluations. Different sections of the Mamlūk administration, when they became the alternative in power, tried to reevaluate the copper coin, and, at certain times, also took copper coins out of circulation.

As Cipolla argued, the Florentine experiment, although lasting only a few months could be said to be an early attempt to control the amount of coins in the economy and hence to reflect a certain understanding of the quantity theory.¹⁶⁵ If that is true, the Egyptian case, where al-Maqrīzī called for reducing the amount of copper coins in circulation in order to stop the crisis and the inflation, may involve also a certain understanding of the relationship between quantity of money and prices.

I will examine in more detail the monetary proposals of the two texts of al-Maqrīzī, both within their economic and political contexts, as well as their conceptual relevance. Then, I will also compare al-Maqrīzī's texts with previous monetary proposals, such as those examined in the case of the *quattrini* in Florence, in order to observe how the quantity element (the amount of money in circulation) emerged as an explanatory factor of monetary inflation.

¹⁶⁵ ———, *Money, Prices, and Civilization in the Mediterranean World, Fifth to Seventeenth Century.*, p. 36

CHAPTER IV. THE EMERGENCE OF QUANTITY ELEMENTS IN THE ANALYSIS OF AND REACTIONS TO MONETARY DISTURBANCES IN CONTEXTS OF SMALL CHANGE INFLATION

In the previous chapter we saw how, in the context of the late 14th-century silver bullion famine, the use of petty coins made of copper increased. Large flows of small coins generated cases of small change inflation. Monetary policies protecting gold currencies had devaluated the small coin, in which daily transactions for most of the population were defined. In Florence and Cairo this introduced disequilibriums in the distribution of rents. The large flows of small coins and the consequent fall in their value revealed the role played by quantity of money in the general structure of money rates and prices. Hence, two proposals, in Florence and Cairo, attempted to reduce and control the number of petty coins in circulation. More particularly in Cairo, al-Maqrīzī wrote two treatises about money and the problem of small change, denouncing the extensive amount of copper in circulation and linking it with the period of inflation Egypt was experiencing at that time. In the present chapter, I will analyze these two treatises in more detail, to examine the monetary proposals presented in them, and finally I will compare that monetary thought with monetary proposals that emerged in other places, such as Florence, to solve similar problems with small change.

IV.1. Al-Maqrīzī's monetary proposals and thought

Al-Maqrīzī's works on Egypt and the Mamlūk period have been extensively recognized in the field of economic history and numismatic studies, but it is only the more recent literature that has started to pay attention to the economic thought embedded in them. Among his works, in addition to the rich references to monetary aspects in some of his chronicles on Mamlūk dynasties, two treatises, the *Ighāthah* and the *Shudhūr*, are dedicated, in particular, to monetary issues. Both texts have been traditionally considered either as chronicles of famines or numismatic histories, probably because of the rich amount of data on currencies and economic crisis in both texts. Even though Silvestre de Sacy highlighted, in his translation of 1797, the “real monetary principles” embedded in al-Maqrīzī's *Shudhūr*, the conceptual

dimension of the text remained unnoticed for years.¹ The *Shudhūr al-‘Uqūd fī dhikr al-Nuqūd*, which may be translated as “Pearls of the divine commands regarding money,” was first published with a translation in Latin in 1797 by Olao Gherardo Tychsen with the title “History of Arab Coins” (*Historia monetae arabicae*).² That same year Silvestre de Sacy published a French translation, *Traité de monnoies musulmanes*.³ The text came, in this way, to be considered a numismatic history of the Islamic world.⁴ The publication history of the *Ighāthah* is more recent. It was first published in Arabic in 1940.⁵ The first complete translation of the text would appear only in 1962 by Gaston Wiet in French with the title “Traité des famines.”⁶ It was followed by a partial translation in French and English by Adel Allouche and Mark Tomass, respectively, in 1994 and 1996.⁷

Apart from de Sacy, the first scholars to point out the socio-economic relevance of al-Maqrīzī’s ideas in these texts were Émile Minost in 1936, although his work did not have much impact in this respect.⁸ Only later in 1976 and 1979, F. Oualalou and Gilles Hennequin, in 1979, addressed the analysis of al-Maqrīzī’s monetary ideas in the *Ighāthah* and the

¹ de Sacy and al-Maqrīzī, “Traité De Monnoies Musulmanes [Shudūr Al-‘Uqūd Fi Dhikr Al-Nuqūd].”, p. 9.

² al-Maqrīzī, *Historia Monetae Arabicae E Codice Escorialensi Cum Variis Duorum Codicum Leidensium Lectionibus et Excerptis Anecdosis* [Shudūr Al-‘Uqūd Fi Dhikr Al-Nuqūd]. Later in 1881 is published in Arabic with other texts on money as “Islamic Coins”: Taqī ad-Dīn Ahmad ibn Alī al-Maqrīzī, *Thalath Rasa’il (1) Al-Nuqūd Al-Islamiyah* (Constantinople: Matba‘at al-Jawā’ib, 1881). It followed a fac-simile edition of one of the manuscripts in Leiden published in 1933 by L. A. Mayer. Taqī ad-Dīn Ahmad ibn Alī al-Maqrīzī, *Maqrīzī’s Shudūr Al-Uqūd [Pearls of the Divine Ordinances Concerning Money]*, ed. L. A. Mayer, vol. Part I. The text in facsimile (Alejandria: Whitehead Morris, 1933).

³ de Sacy and al-Maqrīzī, “Traité De Monnoies Musulmanes [Shudūr Al-‘Uqūd Fi Dhikr Al-Nuqūd].” In 1969 Daniel Eustache published an Arabic-French edition from the manuscript Or. 560 (2) in Leiden, which is a copy of 1438 corrected by al-Maqrīzī and with autograph notes in the margins, a manuscript in the B.N of Paris, and the edition by P. Anastase-Marie de Saint-Elie of 1939 from a manuscript in Baghdad. al-Maqrīzī and (trans.), “Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-‘Uqūd Fi Dhikr Al-Nuqūd].”

⁴ Meloy comments how it was probably as a result of Sauvage’s use (in common with others) of the treatise’s data for his Muslim numismatic history that the impression of it being simply another numismatic history extended. Meloy, “The Merits of Economic History: Re-Reading Al-Maqrīzī’s *Ighāthah* and *Shudūr*”, p. 185.

⁵ From a group of three manuscripts kept in Walī ad-Dīn library at Bāyazīd mosque, in Istanbul. ‘Āshūr, “Taqdīm.”, p. 23. Tomass gives evidence of the existence of 6 copies of al-Maqrīzī’s *Ighāthah* manuscript. In addition to the copies in Walī ad-Dīn Library, five more in the mosque of Bayzīd in Istanbul (reference n°. 3195, scribed in the month of Sha‘bān of 1101/1690); the Egyptian Library in Cairo (reference n°. 77, collections, no date); the Cambridge University Library (reference n°. 746-2, scribed in the year 1112/1700); the ‘Atef Afandī Library, Istanbul (no valuable); the Nour ‘Uthmaniyyah Library, Istanbul (no valuable); and the National Library of Paris (al-Maqrīzī 1940: w-z). Tomass, “Al-Maqrīzī’s Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.”, p. 110.

⁶ Taqī ad-Dīn Ahmad ibn Alī al-Maqrīzī, *Le Traité Des Famines De Maqrīzī* (Leiden: E. J. Brill, 1962).

⁷ Allouche, *Mamluk Economics : A Study and Translation of Al-Maqrīzī’s Ighathah*. Tomass, “Al-Maqrīzī’s Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.”

⁸ Émile Minost, among a series of questions to be examined in al-Maqrīzī’s *Shudhūr*, had also pointed out the possible interest for economists of al-Maqrīzī’s contribution to the explanation of monetary phenomena. However, he did not frame those explanations and proposals of al-Maqrīzī within the history of economic thought, judging, in contrast, that they were not satisfactory to explain the crisis. E. Minost, “Au Sujet Du Traité Des Monnaies Musulmanes De Maqrīzī,” *Bulletin de l’Institute d’Egypte* 19 (1936), pp. 46 & 57.

Shudhūr, respectively.⁹ In 1987, Yassine Essid commented on al-Maqrīzī's works with other "pre-classical" Islamic economic treatises, opening the debate that was to take place in the mid 1990s about the later's conceptions.¹⁰ It was then Adel Allouche who, in 1994, embarked on a partial translation into English of al-Maqrīzī's *Ighāthah*, highlighting the economic dimension of its content.¹¹ It was to be followed up by another almost contemporary partial translation, and commentary, in English by Mark Tomass in 1995.¹²

Up to that point, al-Maqrīzī's *Ighāthah*, partly as a result of the translation of the title as *Traité des Famines*, had been seen as just an account of periods of famine in Egyptian and Islamic history.¹³ The translation of the whole title in Arabic, *Ighāthah al-Ummah bi-Kashf al-Ghummah*, is "Assisting the nation by examining the causes of its depression."¹⁴

In contrast to these extended perceptions, Essid and Allouche highlighted the monetary content of the al-Maqrīzī's text and their focus on monetary policy and their political economic analysis. Allouche indeed demonstrated how the *Ighāthah* was more than a mere compilation of "famines" by clarifying that the error derived basically from the translation of the term *ghalā'*, "inflation", which in French was turned into "famine".¹⁵ Based on this, Allouche declared that the *Ighāthah* was instead a critique to the monetary policy of the Mamluks, aspect that Essid has equally illustrated and later Tomass also emphasized.

Then, in 2001, a symposium dedicated to the "legacy of al-Maqrīzī" analyzed his works in a broader historical and intellectual context and established a new classification for the texts, one of which is treatises on political economy; within the contributions of that

⁹ F. Oualalou, *La Pensée Socio-Économique De Al-Maqrizi* (Rabat: 1976). Hennequin, "Monnaie Ou Monnayage? En Relisant Le Traité De Monnaies D'al-Maqrizi".

¹⁰ Essid, "Islamic Economic Thought."

¹¹ Allouche, *Mamluk Economics : A Study and Translation of Al-Maqrizi's Ighathah*.

¹² Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary."

¹³ The persistence of it being taken as a *Treatise of famines* seems to derive from the fact that Étienne Quatremère, in his translation of the *Sulūk*, refers to the *Ighāthah* as such given that he had access to a manuscript without title. Then in his French, till the moment only complete, translation of the *Ighāthah*, in 1962 Gaston Wiet prefers to keep the title given by Quatremère, although he mentions that the original title in Arabic was: "*Remède offert à la nation pour dissiper le chagrin*," that given by de Sacy in his translation of the *Shudūr*. Étienne Quatremère, *Histoire des sultans mamlouks de l'Égypte*, Paris, 1845 (1:xv), quoted in Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī's Ighāthah and Shudūr", p. 183. Wiet, ed., *Le Traité Des Famines De Maqrīzī*. Probably this confusion is also due to the fact that al-Maqrīzī, after the introduction, and after saying that he is going to speak on the "periods of inflation" or "crisis" of Egypt in history, he starts with a long chapter dedicated to them.

¹⁴ Or in French, the title offered by Oualalou: "Assister la Nation en mettant en lumière ses malheurs." Fathallah Oualalou, *La Pensée Socio-Économique De Al-Maqrizi* (Rabat: 1976), p. 42.

¹⁵ Allouche, *Mamluk Economics : A Study and Translation of Al-Maqrizi's Ighathah*, pp. 10-11; Essid had translated it as "high prices." Essid, "Islamic Economic Thought.", p. 94.

symposium, John L. Meloy embarked on a re-reading and comparison of the two texts to finally define them as “monetary mirrors for princes.”¹⁶ Moreover, he analysed their monetary proposals together as part of a conscious monetary reform that al-Maqrīzī wanted to persuade the sultans to embrace, and which Allouche did not emphasize enough.¹⁷ Some later works have even accepted that “monetary reform” proposed by al-Maqrīzī as a model to consider for the current situation in the Islamic world.¹⁸ Hence, the political and economic conceptual dimensions of these later works have finally been recognized, to the point that their historical component is now perceived as playing an instrumental role in illustrating and stating the economic and political premises presented by al-Maqrīzī.¹⁹

I will join this debate from the line of inquiry opened by Essid, Allouche and Meloy, to first, complete the analysis by placing al-Maqrīzī’s proposals in the whole context of monetary management of late 14th- and early 15th-century Egypt that we saw in the previous chapter. Seen within that context, these two treatises by al-Maqrīzī acquire an internal and historical coherence that they do not have otherwise. This will allow me to complete previous research by Meloy who stressed that the two texts form an intellectual and ideological coherent body or belong to a single “conceptual framework.”²⁰ Secondly, this will permit me to reconsider and then defend the fact that al-Maqrīzī’s monetary thought presents some elements of what later will be known as the quantity theory of money, the direct relationship between prices and the quantity of money in circulation, on which monetary thinking was based. Oualalou, who had already compared al-Maqrīzī with Bodin and Fisher, an aspect to be

¹⁶ B. Craig, ed., *Mamlūk Studies Review: Symposium ‘Medieval Arabic Historiography: The Legacy of Al-Maqrīzī (1364-1442)’* (Chicago: Middle East Documentation Center, 2003)..

¹⁷ Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī’s Ighâthah and Shudûr", p. 198.

¹⁸ See also the proceedings of a conference in 2002 at the Islamic University of Malaysia, where A. R. Saiful and E. R. Barakat take the arguments of al-Maqrīzī to defend the need in the current context of creating an International Islamic Monetary System based on the gold and silver monetary standards of the Islamic traditions. Rosly and Barakat, "The Economic Thought of Al-Maqrizi: The Role of the Dinar and Dirham as Money", pp. 129-30.

¹⁹ A “didactic history.” Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī’s Ighâthah and Shudûr", p. 198. The use of history in al-Maqrīzī may be linked to ancient historiographic traditions, not only Islamic but Persian, which used history as source of cases and examples from which to extract teaching and lessons for the present times in order to show the way to both peoples and their governments. Like Miskawaih wrote history: “As was characteristic of the Persians, he [Miskawaih] uses history as a source of practical ethics and shows that whenever governments and nations have deflected from the path of wisdom and laws of morality, they have inevitably suffered decline and deterioration. Ethics, this is the essence of history; his interpretation of history is thoroughly moral” Ansari, "The Ethical Philosophy of Miskawayh.", p. 148.

²⁰ Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī’s Ighâthah and Shudûr", p. 203.

taken up in the following chapter, had also already pointed out this hypothesis, but it was either denied or overlooked in subsequent discussions.²¹

IV.1.1. *Al-Maqrīzī's treatises on monetary policy: The Ighāthah and the Shudhūr*

Considering the lack of a complete translation in English of either of the two treatises, that the partial translations of the *Ighāthah* by Allouche and Tomass do not translate key sections of the text, that the interpretations they give to some aspects may be subject to different readings, and that there is no critical translation of the two texts in comparison, I offer in this section a detailed description of the content of the two treatises, comparing the Arabic texts with their French translations, and the available English partial ones, in order to set the background for the later comparison of their proposals and approach.

a. *Ighāthah al-Ummah bi-Kashf al-Ghummah*, Cairo, 1405²²

The *Ighāthah al-Ummah bi-Kashf al-Ghummah*, “Assisting the nation by examining the causes of its depression,” starts with a preface in which al-Maqrīzī explains the subject of the treatise and the objectives he wishes to achieve with it: to explain from beginning to end the causes of the crisis, (*balā’* and later *miḥan*, or *al-muṣāb al-shanī’*, misfortune, plague or horrible disaster), to show how it has continued for so long and, finally, to explain how to end it (the disease, *dā’*) and resolve the crisis.²³ In contrast to other contemporary accounts that blamed the insufficient flood of Nile waters for the scarcity and crisis, al-Maqrīzī makes the policy makers and officials in the administration responsible for the inflation and the crisis, which was not a natural disaster but human driven.²⁴

²¹ Oualalou highlighted the originality of al-Maqrīzī’s thought in relation to three monetary questions: the quantity theory of money, the purchasing power of money and Gresham’s law. Oualalou, *La Pensée Socio-Économique De Al-Maqrīzī*, p. 99.

²² For the *Ighāthah* I use the Arabic edition published in the 1990, by ‘Abd al-Fatāh ‘Āshūr, which is a second revision from the first 1940 edition, edited by Dr. Muḥammad Muṣṭafah Ziyādah, Professor of Medieval History in the university of Cairo and Dr. Jamāl ad-Dīn Muḥammad ash-Shayāl. It is based on the manuscript kept in Walī ad-Dīn library at Bāyazīd mosque, in Istanbul, and completed with notes from other two manuscripts in Cairo and Cambridge. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*.; I also use the partial English translations of Tomass and the complete French translation by Wiet; both based also on the first Arabic edition of 1940. Tomass, “Al-Maqrīzī’s Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.”; and al-Maqrīzī, *Le Traité Des Famines De Maqrīzī*.

²³ al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 28.

²⁴ Caused by administrators and rulers that disregard to look for the welfare of humanity (*maslāḥi al-‘abādi*). Ibid., p. 27; “*sait que le peuple n’a qu’à s’en prendre à la mauvaise gestion des administrateurs responsables, à leur manque de zèle envers l’intérêt public*,” Wiet, ed., *Le Traité Des Famines De Maqrīzī*, p. 7. See in contrast, for example, Ibn Taghrī Birdī’s words: “During this year [1403] there was a vast extent of uninundated land in Egypt, and extreme scarcity resulted, followed by the plague.” Ibn Taghrībirdī, *History of Egypt, 1382-1469 A.D.*, p. 80.

After a first section revealing that the facts are relative and the need for them to be compared with each other, in the second section or chapter, al-Maqrīzī gives a detailed record of historical periods of high prices or inflation in Egypt, during the pre-Islamic and the Islamic eras.²⁵ This is the section that was responsible for naming the treatise for years as a “treatise of famine,” as a result of translating the term *ghalā’* as famine instead of rising prices.²⁶ In most related cases, the increase in prices is due to the decrease in agricultural output as a result of the lack of rain and insufficient level of Nile’s waters.²⁷ In every case, al-Maqrīzī explains the causes of inflation, giving data about water levels of the Nile, increase in prices, consequences this had on the population and reactions of the authorities.²⁸

The third section is the key section in which al-Maqrīzī explains what were the causes that made the 1403-06 crisis different from those of previous periods, and the reasons for its long-lasting effects. As in the other cases, he starts by giving information about the level of the Nile’s waters and its impact on agriculture and prices. Then, he observes how the final outcomes were not in proportion to the initial factors, because they lasted longer than two years, which was the average period of inflation following a year of low Nile water levels. Moreover, the increase in prices had no precedents.²⁹ Hence, al-Maqrīzī deduces that other

²⁵ Some parts of this section are translated in Tomass’s article. Tomass, “Al-Maqrīzī’s Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.”, pp. 115-119.

²⁶ In addition to the mentioned confusion between Quatrémère’s and Wiet, the misunderstanding around this section could come as well from the way al-Maqrīzī enunciated his objectives in this section. Al-Maqrīzī mentions how, at that time, there was no complete monograph written about the periods of inflation that desolated humanity since the beginnings of history, and that he would like to compose it. But afterwards he also says that in this treatise he is only going to deal with those that befell Egypt. This could have contributed to consider that al-Maqrīzī’s purpose was to write such a monograph on famines. However, we can interpret that to write a monographs on “famines” (or periods of inflation/crisis), was among al-Maqrīzī’s personal objectives, maybe in future, but not the main aim of the *Ighāthah*. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*., p. 32; Wiet, ed., *Le Traité Des Famines De Maqrīzī*., p. 9.

²⁷ Apart of the various periods of inflation in the pre-Islamic period, al-Maqrīzī recounts and details a total of fifteen moments of economic crisis (inflation and famines) after the coming of Islam in Egypt, in the years (A.H/A.D): (1) 87/705-06; (2) 338/949; (3) 341/952; (4) 352-60/963-71; (5) 387/997-98; (6) 395-99/1004-7; (7) 444-47/1052-56; (8) 457/1064-65; (9) Reign of Āmir bi-Aḥkām Allāh/1101-30; (10) Reign of Ḥāfiẓ li-Dīn Allāh/1131-49; (11) Reign Fā’iz/1154-1160; (12) 596/1200; (13) 694-96/1295-97; (14) 736/1336; (15) 776/1374; al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*., pp. 32-77; Wiet, ed., *Le Traité Des Famines De Maqrīzī*., pp. 9-43; Allouche, *Mamluk Economics : A Study and Translation of Al-Maqrizi's Ighathah*., pp. 20-50.

²⁸ In some of them, as in the crisis of 1064, the situation degenerated even into cannibalism and emigrations. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*., p. 55; Wiet, ed., *Le Traité Des Famines De Maqrīzī*., pp. 25-26.

²⁹ The level of Nile waters did not reach to the required levels during 1393-1394, decrease in agricultural crops and increase in prices following as usual for two successive years (during the period of drought part of the countryside was not cultivated and there was scarcity of seeds for next year, agriculture production remaining low even once the level of Nile’s water was recovered). Al-Maqrīzī recounts how prices then declined again in 1395-1396 but offers evidence for a new increase in prices in 1399-1400 after the death of sultan Barqūq, which was not related with any real factor. The price of a unit of wheat increased a 133% in a year. Then he recounts how when the Nile receded again in 1403-1404 the increase in prices that followed reached a rate of 470% in the

different factors had to be in play. He, next introduces what he says are the three real triggers of the inflation and economic crisis: (1) corruption (*fasād*) – the proliferation of bribery practices among governmental and religious officials;³⁰ (2) the system of land property – the increase in land taxes by landlords who used them for social scaling and as a pay-off for favors in the courts of the emirs;³¹ and (3) the circulation of copper coins.³²

With the two first causes, al-Maqrīzī is inculping the elites, religious and administrative officials, in the corruption of the whole administrative and land system that is restricting the economy of the country.³³ In relation to the third cause al-Maqrīzī explains how in every country, community and human nation before and after Islam, the cost of commodities and the value of labour were set only in gold and silver.³⁴ Al-Maqrīzī recurs to history again to illustrate that the use of copper coins is a recent phenomenon, not recorded in Islamic tradition.³⁵

Along with his report on the history of money and monetary management, al-Maqrīzī pays special attention to the monetary reform introduced by ‘Abd al-Malik at the beginning of the Islamic era, which created the “Islamic coin” (*dinar* and *dirham*) and set the ideal or

case of wheat, extending to food, drinks, clothes and wages. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*., pp. 78-80. Wiet, ed., *Le Traité Des Famines De Maqrīzī*., pp. 43-45. For data on prices see note in previous chapter, Shoshan, "Money Supply and Grain Prices in Fifteenth-Century Egypt.", p. 55.

³⁰ al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*., p. 81; Wiet, ed., *Le Traité Des Famines De Maqrīzī*., p. 45; Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.", p. 120.

³¹ "This took place when some people who ascended the social ladder in serving the princes... [with money] summoned the peasants who were renting the lands and increase the amount of rent (...) they made the increase in rent a habit they practiced every year" (...) "the land diminished its returns and did not give back what it consumed as it usually did" (...) "because the hard times which the peasants experienced (...) death of the livestock, drove most of them to death or homelessness and furthermore, because those who owned lands failed to cultivate it as a result of the high prices of seeds and the scarcity of farmers." Wiet, ed., *Le Traité Des Famines De Maqrīzī*., p. 48; Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.", pp. 120-21; al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*., pp. 84-86.

³² Al-Maqrīzī says that the third reason is the circulation of *fulūs* (*rawāj fulūs*); al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*., p. 86. Tomass transcripts it as *flous*. Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary."p. 122.

³³ The expansion of bribery practices among these groups to keep their status and appearance degenerated in an escalating process in which these corrupted elites found themselves overwhelmed by their debts and imposed very oppressive taxes that ended asphyxiating the whole system and suffocating economic capacities. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*., pp. 81-86. These aspects remind quite the analysis of Ibn Khaldūn in the *Muqaddimah*. See Khaldūn, *The Muqaddimah: An Introduction to History*., pp. 124-127.

³⁴ al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*., p. 87. Wiet, ed., *Le Traité Des Famines De Maqrīzī*., pp. 49-50; Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.", p. 122.

³⁵ No *ḥadīth* speaking of coins other than gold and silver coins. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*., p. 87.

standard system of coinage.³⁶ As we saw, the core of this reform was to fix the weight of coins, which circulated from diverse regions and with different characteristics, mark them, forbid the minting of any other coin, monopolize (or attempt to monopolize) its minting (in the “Islamic *ceca*”) under punishment, and impose its usage throughout the Islamic Empire.³⁷ He highlights how ‘Abd al-Malik’s intention was to look “after the affairs or business of the community” (*‘umūr al-‘umma*h, the Islamic community) which seems to be the main purpose of any monetary reform in al-Maqrīzī’s opinion.³⁸ Afterwards, during the Umayyad dynasty, he also points out some periods in which minting is centralized and coins reached the highest levels of purity, and hence, he takes those periods also as a point of reference.³⁹ Those two examples became the models to be followed for al-Maqrīzī, who emphasizes the contrast between them and following periods, which, starting with the Abbasids, decreased the weight of money and progressively debased it, a practice that gained relevance with the coming of the Turks.⁴⁰ In the opinion of the author, those years are the origin of the decline and abandonment of the right path, which was to consolidate during the Mamlūk period.

From here, after the general history of coinage, al-Maqrīzī dedicates the fourth chapter to a historical analysis about the uses of money in Egypt. In this section, the author details the measures that introduced copper coins and increased their circulation, to finally explain the monetary measures Mamlūk authorities implemented during the years previous to the crisis, which al-Maqrīzī considers the causes of the inflation. Al-Maqrīzī narrates the evolution of the Egyptian coinage system in three phases: the early period in which gold coin was the only currency; the beginnings of the production of silver coins; and the progressive introduction and expansion of copper coins, *fulūs*, observing the gradual dominance of low-value coins

³⁶ Al-Maqrīzī uses the phrase *wa waḍ’ as-sikkah al-Islāmiyyah* which means “and coined the Islamic coin.” The coin had the Muslim precept of faith, *There is no God but God*, graved on it as respond to the negative reaction the Byzantine emperor had against the creation of a new dinar that was competing with the Byzantine one. Afterwards it is said that it was also the advice of religious scholars who contributing to sanctified the name of God in the coins. Ibid., pp. 95 & 97; Wiet, ed., *Le Traité Des Famines De Maqrîzî*, pp. 54-55.

³⁷ al-Maqrîzî, *Ighâthah Al-Ummah Bi-Kashf Al-Ghumma*h., p. 96; Wiet, ed., *Le Traité Des Famines De Maqrîzî*, p. 55.

³⁸ al-Maqrîzî, *Ighâthah Al-Ummah Bi-Kashf Al-Ghumma*h., pp. 98; Wiet, ed., *Le Traité Des Famines De Maqrîzî*, p. 55.

³⁹ During the reign of Hishām ibn ‘Abd al-Malik the minting is centralized in Wasīṭ. al-Maqrîzî, *Ighâthah Al-Ummah Bi-Kashf Al-Ghumma*h., p. 101; Wiet, ed., *Le Traité Des Famines De Maqrîzî*, p. 59.

⁴⁰ The terms al-Maqrīzī uses for debasement are: *Ṣāra nuqṣān* –to make something decrease, diminish or be defective, imperfect; and *ghashsh* – adulteration, deceit, debasement al-Maqrîzî, *Ighâthah Al-Ummah Bi-Kashf Al-Ghumma*h., pp. 104 & 106; Wiet, ed., *Le Traité Des Famines De Maqrîzî*, pp. 60-61; Tomass, “Al-Maqrîzî’s Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.”, p. 122.

over high-value coins.⁴¹ Once more, the author says that the only money used in Egypt, from the beginning of time, to impute the value of labor and the prices of sales, was exclusively gold.⁴² Al-Maqrīzī recalls how copper initially had only two uses: first, mixed with silver to mint a coin called the “black *dirham*,” and other derivations of it; and second, as a daily coin for small transactions;⁴³ Al-Maqrīzī insists that these small coins, called *fulūs*, were never termed “money” (*naqd*, pl. *nuqūd* - cash, coin, money) nor considered to be of the status or condition (*manzila*) of the other two coins (of silver and gold).⁴⁴

Therefore, he explains how copper coins were initially introduced during the reign of Sultan Kamīl (1215-1238) for practical uses, to solve problems of liquidity in small transactions, as other small commodities were used also for those purposes in other regions, such as Iraq or India. He accepts this fact while regretting, however, that from then on the sultans kept minting copper coins (*ḍaraba al-fulūs*) until they were circulating in large quantities (“there were more in the hands of people”).⁴⁵ Al-Maqrīzī then blames a certain official who in 1252 for the sake of profit (*hubb al-fā’ida*) was responsible for minting a heavier coin of copper and decreasing the value of the *dirham* from 48 to 24 coins of copper.⁴⁶ Later, officials of Sultan ‘Ādil Katbughā continued minting copper, although of lighter weight (*khiffa*) until in 1296 copper coins started being exchanged by weight (‘*alā raṭl*, per raṭl) instead of by tale (number).⁴⁷ At this moment, al-Maqrīzī jumps a century to describe the changes introduced during the reign of Barqūq (late-fourteenth century).

⁴¹ Some authors have pointed out the symbology behind this historical explanation. Oualalou highlighted the connotations of power and affluence that gold and silver coins bring into the popular imaginaries, while, in opposition, copper is a sign of decadence. Oualalou, *La Pensée Socio-Économique De Al-Maqrizi*, p. 65. A symbology that goes back in fact to Plato and which different medieval authors picked up, as Ibn in his commentary to Plato’s *Republic*. Ibn Rushd, *Averroes Commentary on Plato’s “Republic”*, pp. 142-43. Plato, *La République*, pp. 224-25 (415a).

⁴² This time, for price al-Maqrīzī uses the term *thaman* (pl. *athmān*), which according to the uses among Muslim theologians may refer to either cost or market price expressed in coins exchanged Daniel Gimaret, “Les Théologiens Musulmans Face à la Hausse Des Prix,” *Journal of the Economic and Social History of the Orient* 3 (1979), pp. 331-32. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 107; Wiet, ed., *Le Traité Des Famines De Maqrîzî*, p. 62.

⁴³ *Al-mabī’āt muḥtaqqarāt*, sales that are despicable, despised or insignificant. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 112; Wiet, ed., *Le Traité Des Famines De Maqrîzî*, p. 65.

⁴⁴ al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, pp. 112-13; Wiet, ed., *Le Traité Des Famines De Maqrîzî*, p. 66.

⁴⁵ al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 116; Wiet, ed., *Le Traité Des Famines De Maqrîzî*, p. 68.

⁴⁶ It meant an increase in the value of the copper coin and hence of its purchasing power, but, as al-Maqrīzī explains, it was hard to bear for the people since prices almost double. What cost before half dirham now costs one dirham. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 117; Wiet, ed., *Le Traité Des Famines De Maqrîzî*, pp. 68-69.

⁴⁷ al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 118; Wiet, ed., *Le Traité Des Famines De Maqrîzî*, p. 69.

He blames the mentioned Maḥmūd Ibn ‘Alī, Barqūq’s ‘Ustādār, in charge of the sultan’s funds (*al-amwāl as-sultāniyyah*), who, with the aim of enlarging his own fortune, produced (‘*aḥdatha*) a huge increase/excess (*ziyādat*) of *fulūs*; sent out [a delegation] to the land of the Franks (*firanja*, Europe) to bring/import (*jalaba*) red copper; and then took control over the minting house of Cairo, minting (*ḍarb*) *fulūs* there, as well as in the mint of Alexandria, all throughout his days.⁴⁸

As a result, al-Maqrīzī explains how the quantity of *fulūs* in the hands of people increased and their circulation spread until copper coins became the dominating coin in the country.⁴⁹ At the same time, he points out how silver coins stopped being minted and people melted the silver they had to make jewellery of the type emirs of the sultan and followers used for the sake of ostentation (*dawā’ī at-tarafī*). Then he emphasizes how, after the death of Barqūq, among the three coins in circulation, copper was the dominant coin, and there was also gold, but in small quantities, while silver had almost disappeared.⁵⁰ Al-Maqrīzī continues, charging that the amount of copper in circulation increased and multiplied (‘*aẓuma rawāju al-fulūsi, wa katharat kathiratan bil-lughati*) until it became the money of reference to set merchandises (*al-mabī’āt*) and labor/crafts (*al-’a’ māl*).⁵¹ Even the value of the gold dinar came to be set in terms of *fulūs* (150 in Cairo and 300 *dirham fulūs* in Alexandria), as did that of the *dirham* (5 *dirham fulūs*, each of which was equivalent to 24 pieces of copper). Al-Maqrīzī points out how wealth eroded, was worn out (*aḍhabat al-māl*), calamities befell people, forcing a reduction of output/capacities, and the disparity between the coins made it impossible to pay back (meet) debts (*ujūd al-maṭlūbāt*).⁵²

⁴⁸ al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 118; “le majordome Maḥmūd ibn ‘Alī [...] animé de la frénésie de grossir sa fortune, fit fabriquer de grandes quantités de monnaies de cuivre. Il envoya des missions en Europe pour importer du cuivre rouge. Il affirma l’Hôtel des monnaies au Caire pour une somme importante et, pendant toute la durée de sa gestion, la frappe des monnaies de cuivre augmenta. En outre, un Hôtel des monnaies fut fondé à Alexandrie pour la frappe des pièces de cuivre.” Wiet, ed., *Le Traité Des Famines De Maqrīzī*, pp. 69-70.

⁴⁹ al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 118; “Celles-çi [des pièces de cuivre] s’accrurent d’une façon excessive parmi la population et leurs cours eut une telle faveur qu’elles devinrent la monnaie dominante dans le pays.” Wiet, ed., *Le Traité Des Famines De Maqrīzī*, p. 70.

⁵⁰ Al-Maqrīzī comments how there was some gold in circulation but not so much given the prodigality Barqūq bestowed among his emirs and men and the expenses incurred because of wars, travels, and gifts during the period of inflation/crisis (*ghalā’*). al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, pp. 118-19; Wiet, ed., *Le Traité Des Famines De Maqrīzī*, p. 70.

⁵¹ al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 119; “La circulation des fels augmenta et leur abondance fit que les marchandises et le taux de la main d’œuvre étaient surtout établis en monnaies de cuivre.” Wiet, ed., *Le Traité Des Famines De Maqrīzī*, p. 70.

⁵² al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 119; “une calamité qui fit disparaître les fortunes,” Wiet, ed., *Le Traité Des Famines De Maqrīzī*, p. 70. Tomass translates this as: “eliminated its money function,” which in the note says to refer to the purchasing power of money. Tomass, “Al-Maqrīzī’s Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary,” p. 130.

To illustrate the last point, al-Maqrīzī explains in the fifth section the impact of the crisis on the population, explaining how prices had eroded the purchasing power of rents. He does so in every of the seven social categories (categories of people) into which he divides Egyptian society.⁵³ Here al-Maqrīzī transforms the rents and wages of all these groups into the standards of gold and silver, in order to, then, compare the purchasing power they had before and the acquisition capacity they had at the present time. For all social classes, using concrete examples of rents and prices, al-Maqrīzī explains how, despite the apparent increase in rents, the loss of the purchasing power of money led to people being in a worse position than before.⁵⁴ He not only focuses on the real value of money in relation to the prices of goods instead of its mere nominal value, but moreover, al-Maqrīzī bases his argument on the fact that boundaries between some groups in the population are blurred by the illusion or mirage that their rents have increased, (from the times of [silver] *dirhams* to that of *dirhams-fulūs*), while in reality they are relatively less: the acquisition capacity of *dirhams* was larger than of *dirham-fulūs* in real terms, because people could buy fewer goods with the money they presently had than they could before.⁵⁵

After this, in the sixth chapter al-Maqrīzī sums up his thesis and relates the crisis, which was destroying wealth and desolating Egypt, to the use of copper coins as a standard of value and principal medium of exchange in every economic transaction (for setting prices,

⁵³ The seven classes are: (1) members of the regime/dynasty; (2) members of the wealthy merchant class and those who benefit from a luxurious life; (3) salesmen, middle-class [middle-income] merchants, holders of dry goods and households, and subjects; (4) peasants, farmers, people of the plantations, habitants of the village and mountain; (5) poor people, including men of jurisprudence, students of theology, and many of the soldiers; (6) masters of handicrafts and people of professions; (7) needy and pauper people. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*., pp. 120-24.

⁵⁴ Ibid., pp. 120-23. "their wealth diminished compared to the wealth which similar people had before;" Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.", p. 132; Wiet's translation is less literal but captures equally the sense of it: "*Leur richesse réelle a diminué par rapport à celle qu'ils détenaient auparavant.*" Wiet, ed., *Le Traité Des Famines De Maqrīzī*., p. 72.

⁵⁵ About the officials, or statesmen class, al-Maqrīzī says that they may think that "their holding of money have increased during these calamities compared with the period preceding these ordeals. For, [according to them,] when considering what they collect in land tax (kharaj) the land on which the tax amounted to 20,000 [silver] dirhams before these events, has now become a 100,000 dirhams-flous. However (...) He spends them on his daily needs of meat, vegetables, spices, oil, and the like. He spends them on clothing for him and for his family, and on what is needed for horses, arms, and other things. He used to purchase all these items before these calamities with 10,000 silver (*dirhams*) or close (...) They did not profit for the increase in land (rent) nor from the increase in the price of gold (...) rather (...) they are losers." The analysis is similar for the rest of the social groups, despite the consequences are worst for the lower classes, which reach the levels of starvation. For the member of the third class, that of textile and dry goods salesmen and proprietors: "when he used to gain 1,000 (silver) *dirhams* from merchandise similar to this, it used to cover his expenses much more than what these 3,000 *dirhams-fulūs* do," Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.", pp. 132-33. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*., pp. 121-22.

taxes and wages).⁵⁶ This use of coins as legal tender is conceived as an “innovation,” *bid’a*, a term used in Islamic jurisprudence for those new aspects introduced in legislation, usually perceived with suspicion.⁵⁷ As a result, al-Maqrīzī details thus the increase in prices of a group of goods, basic foodstuffs, and merchandise, both in Cairo and Alexandria.⁵⁸ Al-Maqrīzī clarifies that if we measure those items in terms of gold or silver, the relative increase looks smaller, but we have to assess it in terms of copper to see the real increase in prices.⁵⁹ His purpose is, once again, to show the fall in real wages.

In the seventh chapter al-Maqrīzī points out principles and measures he thinks would solve the crisis and stabilize the general situation and prices, appealing to that enlightened one who will be able to recognize and endorse them: (1) gold and silver are the only currency as the law (Islamic law), reason and custom make clear, copper coins being used only for small things and household expenses;⁶⁰ (2) prices of merchandise and labor should be defined only in gold and silver and no other coin; (3) the price of metals and coined money of every denomination, including small copper coins, should be set according to the figures he gives: a *mithqal* of gold being exchanged for 24 coined *dirhams* and 23,3 *raṭls* of *fulūs*, hence a coined *dirham* is equivalent to 140 *dirham fulūs*; the existing ratio before the crisis.⁶¹ He appeals for

⁵⁶ Destroying wealth, *talāf al-amwāl*; al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*., p. 126.

⁵⁷ Ibid., p. 125; Wiet, ed., *Le Traité Des Famines De Maqrīzī*., pp. 75-76; Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.", p. 135.

⁵⁸ al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*., pp. 126-130. Wiet, ed., *Le Traité Des Famines De Maqrīzī*., pp. 76-78. Shoshan sees this as the analysis of the “shopping bag” of a “middle class” Egyptian, a reference similar to the way current price indexes are built: “*al-wāhid min ahl at-tabaqa al-wusta*,” in *Ighāthah*, 85; quoted in Shoshan, "From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt.", p. 107. I did not find, however, this sentence that Shoshan says to quote from 1990 edition.

⁵⁹ “Whoever observes prices by considering gold and silver to be the standards of value, he does not find them to have increased except for an insignificant amount, but in relation to the higher quantity of fous, there exists no issue more outrageous to mention that what has stricken people as result of it.” Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.", p. 135. In terms of what “befall people from the abundance or great number of *fulūs*” (*dahā an-nāsu min kathrati al-fulūsi*); al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*., pp. 126-130.

⁶⁰ “*An-nuqūd al-mu’tabarāh*,” valuable or respected coins; “*muḥqurāt al-mabī’āt wa nafaqāt al-buyūt*” the clarification that copper coins have only to be used to buy things of little value or household expenses is introduced only later al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*., pp. 131 and 132; Wiet, ed., *Le Traité Des Famines De Maqrīzī*., pp. 79 and 80; Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.", pp. 136 and 137.

⁶¹ See ratios given above. Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy*., p. 1197. Al-Maqrīzī makes the calculation from the costs and expenses of producing the coined silver coin. Hence, from 100 *dirhams* of pure silver (*khalīṣ*), that which is no minted nor debased (*lam tughsh*) equals 5 *mithqals* of gold; then, adding minting costs, taxes and so on, 150 coined *dirhams* (*dirhams* of exchange, *dirham mu’āmalah*) equal 5’25 *mithqals* (of gold); then the *mithqal* of coined/sealed gold shall equal 24 *dirham* of silver of exchange (circulating silver); and the *mithqal* of gold has to change for 23,3 *raṭl* of red copper (coined in little pieces called *fulūs*), which is 140 *dirham fulūs*. To refer to the taxes and expenses of the mint he uses the phrase *biḥukm s’ir hādha al-waqt*, which may translate as “by virtue of the price of this moment.” al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*., pp. 131-32; Wiet, ed., *Le Traité Des*

whoever is in power to put into practice those premises, to resume the minting of silver, end the corruption and, in this way, return to the situation regarding the prices of commodities and the value of labour which had existed before the crisis. If the value of currencies is set according to those rates and equivalences, al-Maqrīzī claims that the general welfare will increase, prices will decrease and prosperity will spread.⁶²

Al-Maqrīzī explains in more detail the benefits of these measures in the eighth and final chapter, responding to those who think that the monetary adjustment he proposes would change nothing because in the long run, the value of gold and copper coins will equilibrate and stabilize at the same rate – that is, that market forces would restore the former rates between metals and coins. In contrast with that argument, al-Maqrīzī asserts that there are two benefits to his proposals: first, the return of the general situation of prices and commodities to the conditions prevailing prior to the crisis; and second, stability, in the sense that the gold and copper that people possessed (and here al-Maqrīzī takes as granted that for the moment those, gold and copper, are the coins in circulation) would remain unchanged, without ups and downs, increases or decreases (*min ġayri ziyādah wa lā naqṣi*), with a restoration of the conditions, welfare and low prices (*ruḥs*, opposite to *ghalā*, high prices) prior to the crisis.⁶³

How those measures would lead to those results or benefits is not very clear. Al-Maqrīzī simply claims that setting transactions back to what they were before, particularly in respect of gold, restoring the value of commodities (*sila*) and the returns (*ʿūd*) of labour in *dinars* (or coined silver, *dirhams*) would help the nation (*ghiyāt al-ʿummati*) and set the proper condition of things (*ṣalāḥ al-ʿumūri*).⁶⁴ Al-Maqrīzī simply points out again, with some examples referring to different rent ranges, that prices set in copper have increased in unbearable proportions.⁶⁵ He claims that if prices are set in gold or silver they will not change

Famines De Maqrīzī, p. 79; Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary."; pp. 136-37.

⁶² "If, with God's consent, whoever rules the parish succeeds in applying the above ration [between gold and silver] when minting the mu'āmalah silver, people will be relieved of this degenerated state. Commodity prices and values of labor will go back to what they used to be before these calamities." Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary." p. 137; al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 132. Wiet, ed., *Le Traité Des Famines De Maqrīzī*, p. 80.

⁶³ al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 134; "people will continue to hold whatever they have now of gold and flous – which are now the dominant circulating money – without addition or diminution, with a return to prosperity and low prices to what conditions used to be before these hardships. Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary."; p. 138.

⁶⁴ al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 135.

⁶⁵ He refers to the rent of the medium class (*ahl aṭ-ṭabaqati al-wasaṭi*), which was 10 dirhams per day, and now was not able to provide for the basic living costs, given the prices of provisions. Ibid., p. 137; Wiet, ed., *Le*

or increase that much unless certain real or natural factors concur, referring to natural disasters or causes, as the death of cattle or draught, etc.

b. *Shudhūr al-‘uqūd fī dhikr al-nuqūd*, Cairo, 1415.⁶⁶

In the *Shudhūr al-‘uqūd fī dhikr al-nuqūd*, “Pearls of the divine commands regarding money,” or “Les Pearls des Colliers” (as Eustache translates), written 10 years later, al-Maqrīzī restates some of the arguments already put forth in the *Ighāthah*.⁶⁷ The *Shudhūr* is a shorter treatise that al-Maqrīzī writes using basically section three and four of the *Ighāthah*, those about the history of money, both the general history and the history of money in Egypt, repeating numerous examples and sections, but expanding as well the last part on Egypt to include recent events and changes in the monetary sphere that had taken place during the intervening years.⁶⁸

In relation to new developments, al-Maqrīzī, praises the reintroduction of a sound silver coin by Sultan Mu’ayyad Shaikh who, in 1414 returned from his victory in Syria over the emir Nuwarūz, laden with dirhams and silver Venetian coins (*bunduqīa*) and then coined the *dirham Mu’ayyidī* in 1415.⁶⁹ Sultan al-Mu’ayyad Shaykh himself is said to have commanded al-Maqrīzī to write the treatise.⁷⁰ Al-Maqrīzī considers Mu’ayyad Shaikh’s reign as the end of the dominance of copper that had begun under Barqūq.⁷¹ To argue the goodness of the reintroduction of sound silver coin al-Maqrīzī recurs to religion, tradition and good

Traité Des Famines De Maqrīzī, p. 84; Tomass, “Al-Maqrīzī’s Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.”; p. 140.

⁶⁶ I am basically using Eustache’s French translation, also used by Oualalou, the Leiden manuscript Or. 560 (2), and contrasting it, when necessary, with the manuscript 1771 of El Escorial, which Eustache did not consult and which is an earlier copy of 1415. I have also consulted Tychsen and de Sacy’s editions and translations, in Latin and French.

⁶⁷ al-Maqrīzī and (trans.), “Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-‘Uqūd Fi Dhikr Al-Nuqūd].”, p. 96.

⁶⁸ Those parts of the first and second chapters of the *Shudhūr* dedicated to “Ancient coins” and “Islamic coins” respectively correspond roughly to the history of coins introduced in third chapter of the *Ighāthah*. And so does the third chapter in the *Shudhūr*, dedicated to “Egyptian coins”, correspond to chapter four in the *Ighāthah*, a work to which al-Maqrīzī makes reference again at the beginning of the chapter. Some sections are indeed identical. Ibid., p. 121. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 107.

⁶⁹ al-Maqrīzī and (trans.), “Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-‘Uqūd Fi Dhikr Al-Nuqūd].”, p. 133; Mss. 1771, f. 18v.; Or. 560 (2), f. 21.

⁷⁰ Who commanded him to write “a history of coins to be taken as a kind of model or example for money issues”. Ibid., pp. 97 & (Eustache’s note) 145. “Ayan reço de mon souverain Almélík Almouayyad Abounasr Scheikh AlMahmoudi (...) l’ordre de composer un petit traité sur le monnoies Musulmanes...” de Sacy and al-Maqrīzī, “Traité De Monnoies Musulmanes [Shudūr Al-‘Uqūd Fi Dhikr Al-Nuqūd].”, pp. 4-5. al-Maqrīzī, *Historia Monetæ Arabicæ E Codice Escorialensi Cum Variis Duorum Codicum Leidensium Lectionibus et Excerptis Anecdoticis* [Shudūr Al-‘Uqūd Fi Dhikr Al-Nuqūd], p. 4.

⁷¹ “wa ghalibat al-fulūsu ilā qadama al-Maliku al-Mu’ayyad Shaykh.” al-Maqrīzī and (trans.), “Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-‘Uqūd Fi Dhikr Al-Nuqūd].”, p. 133.

governance, putting a special emphasis on the sound and undebased character of the new silver coin.⁷²

However, al-Maqrīzī remains somewhat uneasy that the value of the newly-introduced silver *dirhams* are still defined in terms of the copper coin.⁷³ Thus, he speaks again about copper in order to introduce a new proposal that he considers still needs to be taken. Al-Maqrīzī praises the current sultan, Mu'ayyad Shaikh, for introducing the silver coin but compares him to what he considers the most infamous of the sultans, the one who had allowed copper coin to circulate and spread in large quantities, ruining the country: not Barqūq but, surprisingly, Nāsir Faraj; that is, the sultan who was ruling while he was writing the previous treatise, the *Ighāthah*.⁷⁴ Then he finally suggests that Sultan Mu'ayyad would excel even further if he orders the chief judge and the *muhtasib* (*nāzir al-ḥisbah*, inspector of the office of *ḥisbah*, *muhtasib*) to decree that notaries, officials, shopkeepers and so on, should register every sum of money in every document and contract (land records, building contracts, doweries, religious documents and account books, *dafātir ḥisbānan*), in every sale in the markets and in every administrative and religious office, in *mu'ayyadī dirhams*, the recently-introduced silver *dirham*, and in no other coin.⁷⁵

Al-Maqrīzī then dedicates the last chapter exclusively to summarise his whole discourse on copper, using and making reference to sections from the third chapter of the *Ighāthah*, where he had explained that the third cause of the 1403-06 crisis was circulation of

⁷² In what he says to be the six advantages of the measures, al-Maqrīzī argues that it is in compliance with the sunna of the prophet, who commanded that almsgiving were given in sound silver, not debased (*maghshūsh*); that it follows the way of the believers and if the four orthodox caliphs (*khulafā' ar-rāshidīn*); and that it does not follow the path of the corrupted, since only followers of certain sects had debased the coin. A fourth advantage he sees in the use of sound silver coin is that it prevents greed, a fifth argument says that those who cheat us are not one of us, and the sixth advantage or merit of having a sound coin is agreeable to God because it is what religion advises one to do. Ibid., pp. 133-34.

⁷³ "*mā hua ma'rufā wa ma'a dhālika takūnu muḍāfatan wa mansūbatan ilā al-fulūs*." Ibid., p. 135. Al-Maqrīzī would state his discomfort with the fact of prices and labor still being recorded in copper dirhams of account and copper circulating, despite the sultan resuming the minting of silver, in the Sulūk, 20 years later. Sulūk, 3;394; as recorded by Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī's Ighāthah and Shudūr", p. 198.

⁷⁴ Al-Maqrīzī defends that al-Mu'ayyad cannot be known or related with copper coins which, in contrast, spread/circulate during those days of the most infamous of the sultans, those of sultan Nāsir Faraj, which ruined the country. al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 135. "le Monarque le plus execrable." de Sacy and al-Maqrīzī, "Traité De Monnoies Musulmanes [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 50.

⁷⁵ al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", pp. 135-37. de Sacy and al-Maqrīzī, "Traité De Monnoies Musulmanes [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 51.

fulūs.⁷⁶ He refers again to the *sunnah*, the *ḥadiths* and to past periods in different regions and countries in history, to certify that, before 1403, prices of merchandises and the value of labour had always been set only and solely in silver and gold, copper being used only for petty, negligible sales (*al-mabī'āt muḥqarāt*), without substituting the other (two) legal coins.⁷⁷ In contrast to the *Ighāthah*, however, and in concordance with the previous critiques of Sultan Nāsir Faraj, it is noticeable that the date of reference this time is 1403, during the later's reign. Al-Maqrīzī insists here that in all periods and countries in history those copper coins used for petty sales could be found or obtained only in small amounts.⁷⁸ The link with prices is then mentioned anew, since al-Maqrīzī comments how, compared to current prices then (as examined closely in the *Ighāthah*), in those days things were bought with a small number of petty coins.⁷⁹

It is in relation to the small quantity of copper coins in the old days, that al-Maqrīzī next goes back to those times that initiated a broader use of copper coins and, as in the previous chapter on the historical part about money in Egypt and in the *Ighāthah*, repeats his indictments against Maḥmūd Ibn 'Alī, whom Sultan Barqūq appointed *ustadār*. Again he recounts how during the days of Ibn 'Alī the amount of copper coins increased excessively (*istaktharu min al-fulūs*) since he minted large quantities of copper coins; red copper began to be brought then into Egypt by the Franks, who, looking for profit, took away the silver *dirhams*, while, for the same motive, the people of the country melted them, as well, until its depletion.⁸⁰ *Fulūs*, then, became the dominant coin in circulation until sales were set in copper coins and had even the value of the gold coin.⁸¹

Al-Maqrīzī perceives the situation as still unresolved and consequently proposes new instructions to solve it. However, his proposal this time is to set the price of the copper coin according to its cost and then examine its relationship to silver and gold coins. As he did for

⁷⁶ Al-Maqrīzī introduces indeed a reference to the *Ighāthah* also here. al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 139. And De de Sacy and al-Maqrīzī, "Traité De Monnoies Musulmanes [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 56.

⁷⁷ He also speaks of other things with little value used for petty changes. al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", pp. 137-39.

⁷⁸ "*wa lā yakādu yū'akhdhu (or yūjadu) minhā ilā al-yasīr*," (*al-yasīr* in Eustache's edition, but probably an error since it appears as *al-yasīr*, small, in both Leiden and El Escorial manuscripts). Ibid., p. 139; Mss. Or. 560 (2), f. 15 (Leiden); Mss. 1771 El Escorial, f. 20b.

⁷⁹ Ibid., p. 139.

⁸⁰ Ibid., p. 141; De Sacy, 1797, p. 56. See note in previous chapter about Eustache, using Heyd's study, explains how the copper was arriving from Chiprus by the intermediation of Genoa, hence the "Franks." al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 183.

⁸¹ "*rājat al-fulūs rawājān 'aẓīmān*." al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 141. Mss. 1771 El Escorial, f. 21.

silver in the *Ighāthah*, al-Maqrīzī proposes to go to the markets to observe the price of every *qinṭār* (quintal) of red copper imported (*majlūb*) from the country of the Franks (*balād al-Faranjī*), next add to that price the cost incurred in the mint to make from that red copper the copper coins, *fulūs*, and then, finally, to compare the total with the price of the gold coin, the *dinar*, and, thus, to know, in this way, the relationship of exchange (change, *ṣarafa*) between copper and gold coins, first, and then between copper and silver coins.⁸² Al-Maqrīzī this time does not give the particular rate achieved in this way between coins of different denomination. He simply states that the correspondence between the value of copper coins and the value of gold and silver coins is determined, in this way, from the cost of each amount of metal and the production and coinage expenses. The copper coin will pass then by tale (number) instead of by weight, as it was before. Here al-Maqrīzī condemns again the measure introduced also in 1403 to let *fulūs* to be traded by weight.⁸³ The legal tender and coin of reference should be the silver one, to which the copper coin must be related and not the opposite.⁸⁴

IV.1.2. Al-Maqrīzī's "monetary reform:" the two treatises connected

Next, I proceed to a combined analysis of the two treatises in order to assess Meloy's thesis that they form a conscious "monetary reform," as an intellectually and ideologically coherent body.⁸⁵ I examine the connections between them in relation to first, their economic content, to test if they form a single set of coherent monetary proposals, and second, their political dimension, to see how they interact with the political developments of the period that have been described previously.

a. The *Ighāthah* and the *Shudhūr* as economic treatises with coherent monetary proposals

From his position in the administration as *muḥtasib* or market supervisor, al-Maqrīzī was in direct contact with the economic reality of his time. Data about commercial transactions and

⁸² Ibid., p. 141. de Sacy and al-Maqrīzī, "Traité De Monnoies Musulmanes [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 57.

⁸³ Instead of letting copper to be exchanged by quantity, as in 1403 emir Yalbughā as-Sālimī ordered. "*wa 'annahā lam tazal bil-'adadi ilā 'an 'amaru al-'amīr Yalbughā as-Sālimī.*" al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 143. "*On les donna toujours au compte, jusqu'à ce qu'en l'an 806, l'Emir Ilboga Alsalēmi ordonna de les donner au poids.*" de Sacy and al-Maqrīzī, "Traité De Monnoies Musulmanes [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 58.

⁸⁴ "*Seigneur, daigne inspirer à notre Sultan, par une suite de son heureuse étoile, qu'il ne souffre pas que sa monnaie soit considérée comme l'accessoire d'aucune autre, et qu'il ordonne au contraire que toutes les autres monnoies soient rapports à la sienne.*" de Sacy and al-Maqrīzī, "Traité De Monnoies Musulmanes [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 51.

⁸⁵ Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī's *Ighāthah* and *Shudūr*..", pp. 198, 203.

issues of urban administration appears through all his chronicles, and is used to support his critiques of Barqūq's and Faraj's governments. Al-Maqrīzī was witness to the silver famine and liquidity crisis. He considered it a result of thesaurization and the ostentation of elites and officials, whom he also accuses of having exported silver in exchange for copper, seeking profit. In relation to the importation and circulation of copper, al-Maqrīzī not only censures the prolific minting of copper coins during Barqūq's reign, but also considers it a conscious and predetermined measure that political authorities were taking advantage of. The fact that the causes of the crisis are human driven made it possible to find a solution for them, which is what al-Maqrīzī attempts to show.⁸⁶

In both the *Ighāthah* and the *Shudhūr*, al-Maqrīzī uses history to draw some lessons and support his monetary indictments and proposals. The use of certain historical cases is paradigmatic in some parts, as illustrated by the report to 'Abd al-Malik's reform in the early Islamic times, which appears in both treatises.⁸⁷ The advantages al-Maqrīzī sees in al-Malik's reform are also those of the monetary changes he suggests: fixing the relative rates between coins, which could be said to bring stability and clarity; including the equivalence between large and small coins (adequacy); and conformity with religious law and tradition.⁸⁸ Moreover, 'Abd al-Malik's reform, first, fits al-Maqrīzī's contemporary situation because it makes reference to a parallel case of competing gold coins for the hegemony of trade in the Mediterranean, then the Byzantine *solidus* and the *dinar*, and in al-Maqrīzī's time the *dinar* and the Venetian *ducat*. Second, it also offers a perfect example for al-Maqrīzī to illustrate the correct management of money: it fixed the rates of *dinars* and *dirhams*, whose benefits al-Maqrīzī explains and praises.⁸⁹ In the first text, al-Maqrīzī calls for a return to the bi-metallic system of gold and silver that would fix, as well, the copper in circulation and its value. He

⁸⁶ See note 24.

⁸⁷ al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, pp. 95-99. al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", pp. 107-111.

⁸⁸ He appeals also to that new Islamic *dirham* or white *dirham* (made of silver) as the "legal *dirham*," in religious terms, from the Islamic law, *shari'ī* (legal but also lawful, legitimate, rightful). al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 101; Wiet, ed., *Le Traité Des Famines De Maqrīzī*, p. 58. "*fa-inna al-fiqḍatu hia naqdu shari'ī*," al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 135. Al-Maqrīzī refers to it also as the one around which there is consensus and as the reference to measure rest of coins and measures (standard of measure), *dirham al-kail*. From *kail* - to measure, compare by measuring, to measure something by the standard of. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 99. In Wiet, "dirhem légal" and "dirhem de mesure." Allouche, *Mamluk Economics : A Study and Translation of Al-Maqrizi's Ighathah*, p. 57.

⁸⁹ Three advantages: it established the 7/10 ratio between the canonical dinar and dirham; it introduced homogeneity in the existing coins; it followed the tradition of the prophet and created a stable system for the payment of the religious tax. This is one of the sections identical in the two texts. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 99. al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 111.

proposes to use gold and silver coins as the only currencies to set prices and wages, while leaving copper for small transactions but keeping it under control by setting its price according to its production and minting cost and setting its value in relation to gold and silver rates. In the second text, he acknowledges the benefits of Mua'yyad Shaykh's reform, as he did of 'Abd al-Malik's, since the sultan resumed the minting of silver, something al-Maqrīzī advised in the first text.⁹⁰ However, in the *Shudhūr*, he also insists on the need to regulate copper in relation to the other two currencies in order to keep the whole monetary system stable and fixed, as 'Abd al-Malik's reform did with gold and silver.⁹¹

This is a completely new element in Islamic jurisprudence concerning monetary management: al-Maqrīzī not only defends the monetary *sunnah*, as Meloy termed it and some authors claim, but he also attempts to include copper in that fixed system of equivalence established by Islamic jurisprudence. Without granting copper coins the status of currency, al-Maqrīzī, given the distortion that, in his opinion, copper has created (in both texts copper remains the source of problems), adds more emphasis to his proposal to regulate copper in the second text. While in the *Ighāthah* he simply tries to reduce the use of copper to its minimum expression and focus in restoring and setting the value of silver as it was before, in the *Shudhūr* his focus turns to calculating the value of copper coins, from production and minting costs, and in this way finding the equivalence with the prices of gold and silver coins.⁹² In contrast to gold and silver coins, whose value usually depended mainly on their bullion content, plus the cost of minting and a profit for the coin maker, for coins made of copper or base metal, "their par value (cost of bullion, cost of minting plus profit to the coin maker)" was based on factors other than the "extremely low intrinsic value of their metallic content."⁹³ So, they were merely token coins; something that al-Maqrīzī hopes to change by valuing the

⁹⁰ As Meloy suggests, al-Maqrīzī managed, in this way, to bring together these two historical cases and so emphasize the merits of Mu'ayyad's monetary reform. Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī's *Ighāthah* and *Shudūr*", p. 199.

⁹¹ In both texts, al-Maqrīzī emphasizes that 'Abd al-Malik in doing this reforms was looking for the welfare of the community. "For those issues of the community" or "for the community;" (*ummah*, Muslim community). al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, p. 98. al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 109.

⁹² These parts in the two texts are quite similar. However, in the *Ighāthah*, al-Maqrīzī explains how the final price of silver coin is calculated, from the cost of the pure silver, plus the expenses in production and minting (including taxes). Then he sets the equivalent of this price in terms of gold and copper coins of reference. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*, pp. 131-32. Wiet, ed., *Le Traité Des Famines De Maqrīzī*, pp. 79-80. On the other hand, in the *Shudhūr*, al-Maqrīzī speaks about how to calculate the price of copper, also from the cost of the metal it is made out plus the expenses in minting, and then see its equivalence with the prices of gold and silver coins. al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 141.

⁹³ Schultz and Petry, *The Monetary History of Egypt, 642-1517*, p. 320

copper coins according to their intrinsic value plus the additional costs of production and minting. Having said this, al-Maqrīzī does not yet accept that copper coins could be used as legal tender. He rejects the idea that *dirham fulūs* could be used as the money of account. His purpose is to place the equivalences of the actual copper coins in the regulated system of equivalences in order to have them controlled and circulating in small fixed quantities.

The fact that the crisis is human-made, as al-Maqrīzī claimed to prove, allows for humans to intervene and solve it. This emphasis that al-Maqrīzī introduces must be understood within the framework of broader theological and epistemological debates in Islamic history that speculated about the sources of evil in the world, in relation to determinism or free will and about the question of the universality of God's creation. Al-Maqrīzī's qualifications must be seen as part of this debate that appeared centuries before and confronted the orthodox view, the position of the *sunnah* or the Traditionalists, for which everything is determined and created by God, including evil, and the *mu'tazilite* position, which in broad terms considered men partly responsible for their acts.⁹⁴ For the *mu'tazilite*, therefore, evil is a result of the bad use men make of their freedom. In relation to the attitude towards prices, the debate reflected as well in two positions among theologians and jurists: the Sunnis considered that God set prices, and no human intervention is possible or desirable in this respect;⁹⁵ the *mu'tazilites* considered that men could intervene or influence the determination of prices, for bad or good;⁹⁶ and when such intervention creates an injustice it is a duty to condemn it and try to correct it.⁹⁷ Al-Maqrīzī seems to subscribe to this aspect of the *mu'tazilite* position; hence, his condemnation and then his proposals.⁹⁸ Broadbridge also

⁹⁴ It derives from the question of "al-qaḍā' wal-qadar," God's decree and determination. See Gimaret, "Les Théologiens Musulmans Face à la Hausse Des Prix.", p. 330; and Fakhry, *A History of Islamic Philosophy.*, p. 63.

⁹⁵ Based on a ḥadīth saying that increases and decreases of prices are in the hands of God. Allouche, *Mamluk Economics : A Study and Translation of Al-Maqrizi's Ighathah.*, pp. 10-11.

⁹⁶ See Gimaret, "Les Théologiens Musulmans Face à la Hausse Des Prix.", p. 331.

⁹⁷ "les Mu'tazilites distinguent deux cas. Quand il est clair que la hausse ou de baisse des prix a Dieu pour auteur, il faut se résigner, accepter... Mais quand les mouvements de prix ont pour cause des agissements injustes, in ne faut pas accepter cela ni s'y résigner; il faut au contraire condamner les responsables, et leur faire obstacle si possible;" from the treatises of mu'tazilite theology: *al-Mughnī*, by 'Abd al-Jabbār, and *al-Majmū' fil-Muḥīṭ*, by Ibn Mattawayh. Ibid., p. 335-36. According to Cahen, the political position of the movement would rotate around the principle: "command the right and forbid the good;" which is the principle governing also the ḥisbah and the activity of the muḥtasib. See Cahen, *El Islam: 1. Desde Los Origenes Hasta El Comienzo Del Imperio Otomano.*, p. 84.

⁹⁸ The Mu'tazilite School that applied Greek categories to Muslim dogmas and defended the idea of free will appeared in the 8th century and achieved its highest moment in the first half of the 9th century. It disappeared in the 10th century but its strong influence extended to the 12th century and further in time. Fakhry, *A History of Islamic Philosophy.*, pp. 11, 44-65; Cahen, *El Islam: 1. Desde Los Origenes Hasta El Comienzo Del Imperio Otomano.*, pp. 77-79, 83-86. Some authors have seen Mu'tazilite influences in Ibn Khaldūn, which could reflect

assesses how the linking of injustice, and in particular injustice by the ruling elite, with social trouble in al-Maqrīzī's work echoes Ibn Khaldūn's ideas about the cycles of civilizations.⁹⁹

b. The *Ighāthah* and the *Shudhūr* as political treatises for monetary reform

Al-Maqrīzī's focus from the beginning is on corruption and mismanagement of officials.¹⁰⁰ His monetary indictments in both texts focused on two administrations: first, Barqūq's reign, under whom the importation of copper and minting of copper coins by Maḥmūd Ibn 'Alī al-'Ustādār, as well the consequent increase in the circulation of *fulūs* took place; and second, Faraj's reign, during whose administration the copper coin of reference, *dirham min al-fulūs*, came to be accepted as the money of account. In the *Ighāthah*, the indictments are directed basically to Barqūq's administration, and offer only an indirect critique to the current officials. In the *Shudhūr*, the whole tone and purpose of the text changes, since instead of an indictment it comprises a laudatory exercise plus advice. However, in this second text, as was to appear in later works, the accusation against the former Sultan Faraj is made explicit, without subterfuge. In this way, the *Shudhūr* helps to clarify the political content and motivations of the *Ighāthah*.¹⁰¹ Moreover, this recommendation is addressed to the chief Qadis, to abolish the

as well in al-Maqrīzī, who, as commented, was close intellectually and personally to the Tunisian scholar. For the Mu'tazilite influence in Ibn Khaldūn see Henri Laoust, "La Pensée Politique D'ibn Khaldoun," in *The Political Works of Ibn Khaldun* (1979), pp. 455-56. Indeed, Essid considers Ibn Khaldūn, as al-Dimashqī an Ash'arite, doctrine close to the Mu'tazilism: "dans cette perspective (...) les mouvements des prix sont admis non pas comme une loi, qui exigerait soumission et résignation, mais comme le produit d'un ou de plusieurs facteurs économiques ou politiques ou humains (...) De leurs fluctuations en effet, bénéfiques ou préjudiciables, découle sa [the merchant's] prospérité ou se décide sa ruine." See M. Yassine Essid, "Introduction," in *Eloge Du Commerce* (Tunis: Edition Media Com, 1995), p. 13. The Ash'arite School appeared in the 10th century as a kind of intermediate position. Cahen, *El Islam: 1. Desde Los Origenes Hasta El Comienzo Del Imperio Otomano*, p. 208.

⁹⁹ Broadbridge, "Royal Authority, Justice, and Order in Society: The Influence of Ibn Khaldūn on the Writings of Al-Maqrīzī and Ibn Taghrībirdī", p. 238.

¹⁰⁰ He starts referring to the fact that God sent the prophet, his allies and followers to put an end to injustice/tyranny and corruption by way of his law. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghumma*, p. 27.

¹⁰¹ See note 74. A direct critique against an-Nāṣir Faraj that is corroborated in other later statements by al-Maqrīzī, probably in the *Sulūk*, as transcribed by Taghrī Birdī: "An-Nāṣir was the most ill-omened of all rulers of Islām, for by his bad management he brought ruin upon all the land of Egypt and all of Syria from the source of the Nile to the outlet of the Euphrates. (...) Famine struck Egypt from 806 on. The emirs of his government did their utmost to raise prices, by storing up agricultural products and then selling them at high prices (...) they corrupted the coinage by abolishing the Islamic gold coins and using coins which bear images and which are of Christian minting. They raised the price of gold till it reached 240 dirhams per mithqāl, after it had been exchanged formerly at 20 dirhams; and they imposed taxes on everything. (...) All this originated with Sa'd ad-Dīn ibn Ghurāb, Jamāl ad-Dīn Yūsuf the major-domo, and others. (...) More than half of Cairo, its estates and its environs, were ruined; two-thirds of the population of Egypt died of famine and plague; (...) He died at the age of twenty-four years, eight months, and some days. All these things mentioned were the result of the poor management of affairs of his father's mamlūks in dealing with him, and of their conflicts with one another." Ibn Taghrībirdī, *History of Egypt, 1382-1469 A.D.*, pp. 197-98.

1403 decree that declared that even debts and contracts were to be set in the copper coin of reference, the *dirham fulūs*.¹⁰²

Although there is some consensus in the literature that al-Maqrīzī wrote the *Ighāthah* during the economic crisis of 1403-06 in Egypt, there has been, however, no agreement about the exact date of its conception or the administration against which it reacted. Al-Maqrīzī is said to have finished arranging and correcting the text in a single night at the end of June-July 1405;¹⁰³ that is in the midst of the plague and famine that desolated Egypt and put an end to the life of al-Maqrīzī's own daughter.¹⁰⁴ Al-Maqrīzī had held the position of *muhtasib* or market supervisor from April to May 1405.¹⁰⁵ So, if his statement is true, he wrote the treatise, a month after leaving that position. The reasons for him leaving the office are, however, unclear. It could have been the result of his discontent with the corruption that dominated those juridical positions in the administration.¹⁰⁶ Another possibility is that by May 1405 there were changes in the Mamlūk administration that did not benefit al-Maqrīzī or

¹⁰² See section in the Shudhūr commented in note 75. The fact, that al-Maqrīzī addresses the qadies, is also commented in Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī's *Ighāthah* and Shudūr", p. 200.

¹⁰³ "qāla al-mu'alifu rahmahu Allāh ta'ālā: taysiru lī tartybi haḍihi al-muqālātī wa tahḍybihā fī laylatī wāḥidatī min layālī al-muḥarrama sanatī thamānī wa thamānīmīātī," al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*, p. 139. Wiet, ed., *Le Traité Des Famines De Maqrīzī*, p. 84; Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary," p. 140.

¹⁰⁴ That personal loss may be a factor not only in moving al-Maqrīzī to write the treatise but also in explaining the overall critique and bitter tone of the text. In the preface to 1990's edition 'Abd al-Fatāḥ 'Āshūr mentions how it is clear that the loss of his only daughter in the plague pushed him to compose the treatise. 'Āshūr, "Taqdīm," p. 12. Oualalou states that her "petite fille" died victim of the plague in 1404 at the age of 6 years. Oualalou, *La Pensée Socio-Économique De Al-Maqrīzī*, p. 38.

¹⁰⁵ See note in previous chapter 'Āshūr, "Taqdīm," p. 9.

¹⁰⁶ About the position of *muhtasib* in the Khitat, al-Maqrīzī would later state that: "*La charge nommée hasaba ne peut être remplie que par un homme distingué entre les Musulmanes et d'une intégrité reconnue*," de Sacy and al-Maqrīzī, "Traité De Monnoies Musulmanes [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd]," p. 52. Corruption and bribery to achieve certain positions in the administration were an extended practice by then even among religious offices, as al-Maqrīzī himself denounces in the *Ighāthah*, probably making reference also to the office of the *muhtasib*. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*, p. 81; Wiet, ed., *Le Traité Des Famines De Maqrīzī*, p. 45. According to ar-Rāziq's study, it seems that the rotation in that position was indeed quite high, officials held it some times for less than a month, probably due to the intervention of the different emirs in search of keeping that institution under their personal control. The first time that al-Maqrīzī was in the office of *hisba* in 1399 he is substituted by another scholar to become also famous as historian, Maḥmūd b. Aḥmad b. Mūsā, Badr ad-Dīn, al-'Aynṭābī (known as al-'Aynī). Al-'Aynī entrance in office took place thanks to the intervention of the emir Jaqam. A month later he is again substituted by Jamāl ad-Dīn Muḥammad Ibn 'Umar aṭ-Ṭanbudī, the "protégé" of another emir, after paying a considerable amount of money. In January 1400, after al-'Aynī second round in office, al-Maqrīzī recovers the position of *muhtasib* but simply for three months: from the 18th of *Jummādā I* 802 (16-01-1400) to the 10th of *Shā'bān* 802 (06-04-1400). 'Abd ar-Rāziq, "La Hisbah Et Le Muhtasib En Egypte Au Temps Des Mamlûks.": 115-215, pp. 125-127 and 149. Corruption and political struggles for controlling the position of *muhtasib* may also related to the fact that from mid 14th century on the market supervisor became the main intermediary in tax collection, as Lapidus explains. Lapidus, *Muslim Cities in the Later Middle Ages*, p. 99. Ibn Taghrī Birdī considers corruption and bribery as common and normal phenomena, surprised of al-Maqrīzī's concerns in this respect. Ibn Taghrībirdī, *History of Egypt, 1382-1469 A.D.*, p. 44.

his political allegiances, leading, or even forcing, him to resign.¹⁰⁷ A third possibility is that he did not approve the policy that was being implemented, as Allouche contended, which matches the tone of the critiques in al-Maqrīzī's texts.¹⁰⁸

His discontent with Faraj's administration is made clear in later texts and, hence, it was probably a major factor bringing him to write the *Ighāthah*. That administration led by Yashbak ash-Sha'abānī and Ibrāhīm Ibn Ghurāb was the one that had introduced the reform in 1399 in favour of the gold coin and that contributed to silver flowing out of the country, and copper being debased, adversely affecting the population, all facts al-Maqrīzī's complains about.¹⁰⁹ Ibn Ghurāb had been behind the conspiracy that ended Maḥmūd 'Alī career, so, in that sense, it was safe for al-Maqrīzī to put the blame on the latter while Faraj and Ibn Ghurāb were in power. That administration had been interrupted from August 1404 but was back in June 1405. So, al-Maqrīzī was back in the office of *muḥtasib* during the period that the policy defending gold had been interrupted, and left it shortly before Ibn Ghurāb and ash-Sha'abānī restored their positions once they recovered the confidence of Faraj.¹¹⁰ So, in the first treatise, al-Maqrīzī wants to attack the monetary ideas of the administration in power, but blames the previous one to soften his critiques.

Another factor that could mean the *Ighāthah* was written in June 1405, as al-Maqrīzī states, is that, as seen in the previous chapter, during that month, while Sultan Faraj was in Syria fighting one of the revolts against his sultanate, a revaluation of the copper money of account was introduced in terms of copper. As commented, that reform reduced the nominal value of the *raṭl* of copper coins from 6 to 4 *dirḥam-fulūs*, meaning a loss of 33,3% in the acquisition capacity of copper coins, since prices were set in *dirḥam-fulūs*, the copper money of account al-Maqrīzī blames. However, since salaries were also set in *dirḥam-fulūs* that also meant that for the same salary people now received a larger quantity of copper coins. People had more coins but those coins had less value. This may be the kind of monetary illusion al-Maqrīzī refers to in the *Ighāthah*, which was boosted by inflation. He repeats that despite

¹⁰⁷ Like al-Maqrīzī, in May 1405, Ibn Khaldūn, who held the position of Maliki chief qadi, was also substituted in his office. Ibn Taghribirdī, *History of Egypt, 1382-1469 A.D.*, p. 89. We have commented already about the relationship between al-Maqrīzī and Ibn Khaldūn, and the admiration of the former for the work of the later. Broadbridge has also raised the issue of al-Maqrīzī's problems and disillusionment in the "competitive world of the Mamluk ulama", which had also played a role in him losing the post of *muḥtasib* in 1400 against his rival al-'Aynī. (pp. 234 and 237).

¹⁰⁸ "His disagreement with official policy is implied in a statement that he accepted the last appointment unwillingly and only upon the insistence of the then ruling sultan, Faraj." Allouche, *Mamluk Economics : A Study and Translation of Al-Maqrizi's Ighathah*, p. 13.

¹⁰⁹ Ibn Taghī Birdī, 1954, pp. 2 and 121.

¹¹⁰ See previous chapter.

people believing that they were wealthier because they had more coins, the money they were using had even less value than they thought.¹¹¹ However, this argument is not conclusive since that critique may refer as well to the general effect inflation was causing by eroding rents.

The possibility suggested by Meloy is that al-Maqrīzī wrote the text between August and December 1405.¹¹² Internal struggles between the Mamlūk factions had again arisen in September and Faraj had abandoned power to hide away until the end of November 1405. During that period, Ibn Ghurāb took his place, so it may be then that al-Maqrīzī was also writing against his policy. Indeed, on the tenth of September 1405, Sultan Faraj had seized Cadi Faṭḥ ad-Dīn Faṭḥ Allāh, the confidential secretary, who had been al-Maqrīzī's patron, appointing Ibn Ghurāb in his place.¹¹³ This could have influenced as well al-Maqrīzī's decision to write his indictments at that time.¹¹⁴ That possibility, although it contradicts al-Maqrīzī's own statement, matches as well Allouche's conclusions, which, based on internal evidence in the text, determined that it could not have been written before October or November 1405.¹¹⁵

Consequently, either in June 1405 or between September and November of that year, it could be said that al-Maqrīzī was addressing the treatise to the young Sultan Faraj calling for him to stop the monetary policy led by ash-Sha'abānī and Ibn Ghurāb and, instead, to listen to al-Maqrīzī's recommendations. It is quite possible then that the figure to whom he appears to address the *Ighāthah* is Sultan Faraj, who he expects to introduce his monetary proposals once back in power.¹¹⁶ However, when Faraj came back to power in December

¹¹¹ In the *Ighāthah*, al-Maqrīzī warns about the kind of "monetary" illusion people is experiencing as result of the real lost in the purchasing-value of copper coins. See note 55.

¹¹² Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī's *Ighāthah* and *Shudūr*", p. 190.

¹¹³ Making the judge to pay a million dirhams. Ibn Taghribirdi, *History of Egypt, 1382-1469 A.D.*, p. 95. Reference about Faṭḥ Allāh being al-Maqrīzī's patron in: Rabbat, "Who Was Al-Maqrīzī? A Biographical Sketch", p. 16.

¹¹⁴ His patron was however released from prison on the 14th of October, after having to pay 500.000 dirhams of fine, and, in May 26th 1406, sultan Faraj restored him in his position of confidential secretary. Ibn Taghribirdi, *History of Egypt, 1382-1469 A.D.*, p. 121.

¹¹⁵ Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī's *Ighāthah* and *Shudūr*", p. 190.

¹¹⁶ From the text, we can safely confirm that al-Maqrīzī expects some factions in power to listen to his political proposals. In the last next section, al-Maqrīzī refers to the authorities, or the people responsible of public affairs, as the ones who could be in power to implement his monetary proposals. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah.*, p. 137; Wiet, ed., *Le Traité Des Famines De Maqrīzī.*, p. 83; Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.", p. 140. There are also references to an anonymous character that could be sultan Faraj to whom the recommendations are directed. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah.*, p. 131; Wiet, ed., *Le Traité Des Famines De Maqrīzī.*, p. 79. If Meloy's argument is right, then that figure would be sultan al-Malik al-Manṣūr 'Abd al-'Azīz

1405, he promoted ascended both ash-Sha'bānī and Ibn Ghurāb, and the policy of protecting the gold coin at the expense of the silver and copper coin, is resumed. This may have contributed to al-Maqrīzī's sharp comments against Sultan Faraj in the *Shudhūr*.

Al-Maqrīzī's monetary proposals in the *Ighāthah*, the reduction of copper coins and re-introduction of silver, were introduced only later, during the last year of Faraj's reign and with the rise to power of his successor, al-Mu'ayyad Shaykh in 1412. There is however no clear evidence about where al-Maqrīzī was, since he seems to be gone from public life during those years.¹¹⁷ Although it is difficult to assess whether they were a result of al-Maqrīzī's influence, or of the monetary needs and changes of the metal supplies at that time, in 1411 copper coins were taken out of circulation and in 1415 Sultan Mu'ayyad Shaykh resumed the minting of silver and coined the new *dirham Mu'ayyadī*.¹¹⁸ It was then that al-Maqrīzī wrote the *Shudhūr*, praising the monetary policy of Sultan Mu'ayyad Shaykh.¹¹⁹ The question of whether al-Mu'ayyad Shaykh's measures were attempts to put copper out of circulation to realign the monetary system as al-Maqrīzī suggested, or to seize copper given its scarcity and high value (probably to export it to India) as Bacharach and Shoshan suggested, or were simply ways to get extra revenues on the part of authorities, is difficult to assess.¹²⁰ Be that as

ibn Barqūq, the brother of Faraj, who substituted him in power during those months that went to hide. Given the youth and lack of political relevance of that sultan, I find it quite unlikely.

¹¹⁷ He leaves temporally Cairo and expends some years in Damascus, maybe in relation to some misunderstanding with some of the officials in power. Most scholars, based on Rosenthal, point to him leaving Cairo in 1408 and staying in Damascus about a decade. Rosenthal, "Al-Maqrīzī.", pp. 12-13. 'Āshūr mentions that he traveled there several times while being *muhtasib* in Cairo. 'Āshūr, "Taqdīm.", p. 9. In 1410, he is offered the position of Shāfi'ī Chief judge in Damascus. An offer that al-Maqrīzī rejects several times. A factor in this withdrawal may be that in 1413 (Shawwāl 815- Rabi' al-Awwal 816/ January – June 1413) al-Maqrīzī's patron, Fath Allāh, is dismissed from his position of *kātib al-sirr*, and put in jail for six months. After leaving prison is assassinated in June. Recounted by Rabbat from al-Maqrīzī's own texts. Rabbat, "Who Was Al-Maqrīzī? A Biographical Sketch": 1-19, pp. 15-16.

¹¹⁸ de Sacy and al-Maqrīzī, "Traité De Monnoies Musulmanes [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 49; Rosly and Barakat, "The Economic Thought of Al-Maqrizi: The Role of the Dinar and Dirham as Money", 2002, p. 134; Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī's *Ighāthah* and *Shudūr*.", p. 198.

¹¹⁹ Meloy comments how al-Maqrīzī wrote the *Shudhūr* between 818 and 824 of the Hegira, that is between March 1415 and the end of Mu'ayyad Shaykh reign, in 1420. Meloy probably bases his statement in de Sacy who affirmed that the treatise was: "composé au plus tôt en l'an 818 de l'hégire (1415), et au plus tard en l'an 823 de cette ère (1420)." de Sacy and al-Maqrīzī, "Traité De Monnoies Musulmanes [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 2. The manuscript of El Escorial (Mss. 1771) is dated in 1415 (818 H.) by Casiri. Casiri, *Biblioteca Arabico Hispana Escorialensis*, p. 173. As does consequently Tychsen. al-Maqrīzī, *Historia Monetæ Arabicæ E Codice Escorialensi Cum Variis Duorum Codicum Leidensium Lectionibus et Excerptis Anecdotis* [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd], p. 4.

¹²⁰ Shoshan argues that if the Mamlūk government bought copper (or forced people to sell it) was due to the copper shortage of the moment. Shoshan, "From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt.", p. 106. Shoshan refers again to the supposed lack of copper during those years, an hypothetical shortage that presents certain faults, as previously explained, particularly considering the amounts of copper taken out of circulation during those years and in 1411. It does not hold either that the recollection of copper was due to the Mamlūk's need of the metal to make payments, as Shoshan's argument suggests. As they did force people to

it may, the fact is that at least al-Maqrīzī conceived those measures as the implementation of his monetary policy proposals, even if they did not produce the outcome he expected, as he would recognize years later.¹²¹

Al-Maqrīzī's new proposal in this second treatise, to set the equivalences between the value of the copper coin and those of the gold and silver coins, once its price has been calculated from production and minting costs, may be, as well, a reaction, given the mentioned gap in the jurisprudence on copper, to the concurrent monetary manipulations with the exchange rate of the copper money of account, during Faraj's times.¹²² Then, in 1416 and 1418, copper coins were again taken out of circulation in exchange for *dinars* and in that last year it was declared that prices had to be put back in *dirhams*, as al-Maqrīzī proposed.¹²³

Times such as those of the period of reference, in which the money of account is progressively devalued and unstable, are detrimental to lenders and rentiers, favouring debtors.¹²⁴ Al-Maqrīzī's position, like that of other judges and jurists, seems to be on the side of the lenders or rentiers' interests who saw their rents fall given the loss in the value of the money in which debts were set.¹²⁵ As mentioned, from 1403, given the broad use of copper, it was declared that even debts and contracts were to be set in the copper coin of reference, that is *dirham fulūs* or the copper coin of account, whose value was decreasing over time. A recurrent problem, particularly grave when the Mamlūk authorities made new issues of copper coins of higher nominal values, arose when coins and rates cancelled debts, the new ones benefitting debtors or the old ones favoring lenders. A recurrent solution on the part of notaries was to refer to the old rates. To avoid the problem, in 1429, the chief *Qadi* of Cairo, following complaints by notaries and lenders, after successive devaluations of the copper money of account in which debts were still set, issued a *fatwa* or juridical declaration, saying

accept dinars in return for fulūs, they could have perfectly forced debtors to accept the payment of debts and salaries in gold. It is possible that another motivation among Mamlūks officials to recollect copper was to export it to India.

¹²¹ In 1423. Al-Maqrīzī, *Sulūk*, IV, 629-30. See references also to the widespread used of copper in the *Sulūk* (IV, 165, 205, 280, 306). *Ibid.*, p. 103.

¹²² See previous chapter.

¹²³ From al-Maqrīzī's *Sulūk*, Shoshan, "From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt.", p. 103.

¹²⁴ Al-Maqrīzī, as mentioned, wrote the *Ighāthah* in 1405 and the *Shudhūr* about 1418. The value of a *raṭl* of copper coins in terms of *dirham fulūs* or *dirhams* of account had passed from being 1,3 in 1381 to be then 4,5 and 6 in 1402 and 1403 and 10 in 1404. After a slight decline in 1405, equaling 6 *dirhams fulūs*, it reached 12 in 1410-12, decreasing again to the burden of 6 between 1416 and 1423. See the table compiled by Shoshan from contemporary chronicles. *Ibid.*, p. 114.

¹²⁵ It made impossible to pay back (meet) debts (*ujūd al-maṭlūbāt*). See note 52.

that in every document sums of money had to be specified in gold and silver terms only, abolishing the 1403 decree, and following again al-Maqrīzī's proposals.¹²⁶

Later on, al-Maqrīzī seems to maintain his monetary principles or at least consider them valid for the situation of the Egyptian economy even by March 1438, when, he corrects a copy of the manuscript of the *Shudhūr* only a month after the death of Sultan Barsbāy.¹²⁷ Barsbāy had reintroduced a new silver coin in 1430, the Ashrafi *dirham*, but also played with the value of the copper money of account.¹²⁸ Given the trick introduced by Barsbāy in 1435, which set the new copper coin at a higher nominal value, the proposal in the *Shudhūr*, to fix the value of the copper coin in respect to other coins, still made sense to prevent that kind of game at the expense of the population. Hence, the fact that al-Maqrīzī considered his monetary proposals in the *Shudhūr* still accurate for the moment, and corrected new copies of his *Shudhūr*. After Barsbāy's death, al-Maqrīzī reminded people of the risks involved in allowing copper coins to circulate out of control, while praising the efforts made to reintroduce the silver coin in circulation, thanks, among other factors, to the resumption of silver imports from Europe.

To sum up, first, and in relation to the economic content of the treatises, we can consider them thematically connected. Moreover, the two reflect a pattern of continuity in al-Maqrīzī's monetary thought.¹²⁹ Both are related to the problem of small change, particularly the case of widespread use of *fulūs* and, in both cases, al-Maqrīzī's calls to stop the use of copper coin and resume or continue that of the silver coin. Furthermore, the indictments of the previous sultan in the first treatise became praise of the new sultan, since the latter introduced again the silver coin. In spite of this, the praise in the second treatise is qualified by the fact that copper is still being used broadly as both currency and money of account in the country. Then, al-

¹²⁶ From the *Sulūk*, IV, 795 and other chroniques. Shoshan, "From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt.", p. 115.

¹²⁷ One of the copies of the manuscript in Leiden (Or. 560 (2)), with autographic notes by al-Maqrīzī in the margin, was finished in Ramaḍān 841, that is, between end of February and end of March of 1438. The key aspect here is that al-Maqrīzī was personally monitoring the writing of new copies of the treatise in 1438, which indicates that he still considers his political indictments and proposals in that texts adequate for the moment.

¹²⁸ Taghrī Birdī (IV, p. 79) quoted in Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy.*, p. 1204.

¹²⁹ Meloy stated, they "may be read as an attempt to achieve a conceptual framework – a kind of economic *Muqaddimah*– for the history of Egypt." Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī's *Ighāthah* and *Shudūr*", p. 203. More than economic I would say "monetary", and more than a conceptual framework, I would say they compose a concrete and particular message about how to manage money in the Egyptian economy.

Maqrīzī wishes with his new proposals, if not to stop entirely the circulation of copper coins, at least to keep it under control by setting its value according to its intrinsic value and determine its relationship then with the value of gold and silver currencies, according to its intrinsic and production cost, which was quite an innovation in Islamic jurisprudence.

Second, and regarding the political dimension of his monetary reform, in both treatises al-Maqrīzī is contesting certain monetary developments introduced by the Mamlūk authorities of that time and addresses concrete political issues of the moment. If in the *Ighāthah*, written in 1405, al-Maqrīzī makes one of Sultan Barqūq's officials responsible for the introduction of massive amounts of copper and hence, the inflation and crisis, in the *Shudhūr*, written ten years later, he praises the re-introduction of the silver coin by Sultan Mu'ayyad Shaykh, which was one measure he recommended in the first treatise to solve the economic situation of the country. However, copper remained an issue, and, consequently, in both texts al-Maqrīzī dedicated a considerable section to arguing that copper could not be taken as a money of account and its price and use should be regulated. Hence, in both treatises he was reacting against the regulation introduced in 1403 by way of which contracts and transactions were officially registered in copper coins, establishing an official copper coin of reference, the *dirham fulūs*.¹³⁰ He clearly leans towards the abolition of this decree, which finally occurred in 1429, 25 years after al-Maqrīzī proposed it. From the second treatise and later texts of the author, we can deduce that al-Maqrīzī in the *Ighāthah* was clearly writing in reaction to and against Faraj's administration. He opposed in particular the administration of ash-Sha'bani and Ibn Ghurāb, who, with their policy of revaluation of the gold coin, had assured the supply of gold and the quality of the gold coin, but at the expense of making silver disappear and letting copper fill the gap left by the latter.

IV.2. The relevance of al-Maqrīzī's monetary proposals, intellectual context and cases of small change in perspective

Meloy has asserted that al-Maqrīzī's monetary treatises, both the *Ighāthah* and the *Shudhūr*, are kinds of "monetary mirrors for princes" where the author, who, as we saw was supervisor of the markets in Cairo, offers proposals for how to manage money in those markets.¹³¹ We saw how the economic and political content of those texts offer indeed a series of proposals or

¹³⁰ Schultz and Petry, *The Monetary History of Egypt, 642-1517*. p. 337.

¹³¹ Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī's *Ighāthah* and *Shudūr*", pp. 186 and 197-98.

monetary reforms for the rulers or officials in power to solve some of the economic and monetary problems of the time. The particular position of al-Maqrīzī towards copper coins and, in sum, towards the problem of small change, entails two aspects at least that I think need further attention:

First, he attempts to regulate copper within the system of fixed equivalences set by Islamic jurisprudence. This aspect has not been pointed out before, nor its implications for the cohesion of the monetary system evaluated

Second, al-Maqrīzī introduces the quantity dimension into the analysis and control of monetary inflation. This aspect had been pointed out by Oualalou, but was disregarded in later analyses, which highlighted al-Maqrīzī's argument to be merely a critique to debasement or an appraisal of Gresham's law.

After analysing these two points, I compare al-Maqrīzī's ideas and proposals with previous proposals to end small change inflation in Florence.

IV.2.1. Including copper in the fixed system of equivalences set by Islamic jurisprudence

The defence of the status of gold and silver coins as the only legal standards of value, while leaving a marginal position to copper as a token for small transactions, was the pattern in Islamic jurisprudence, as we noted earlier. However, al-Maqrīzī develops from the first to the second text an innovation, not only an "adjustment of the *sunna*" as Meloy called it: al-Maqrīzī's purpose is to regulate copper, that is, small change, within the monetary system. His call is not simply to go back to the canonic Islamic bimetallic monetary system, but to include the regulation of copper within that system. His proposal was to calculate and set the price of the copper coin, as well as those of the silver and gold coin, then determine their equivalences and exchange them in accordance.

Gold and silver coins were considered as the only legal tender in the Islamic world. Islamic commentators on Aristotle, including Bryson, spoke of gold, silver and, sometimes, copper rather than iron and silver, as did the philosopher. Dimashqi and most Islamic thinkers introduced copper only as something "some people" used to make *fulūs*, petty coins. Al-Ghazālī referred instead only to gold and silver.¹³² In the second chapter we saw how both he and Ibn al-Ukhūwa considered, however, that while gold and silver currency was regulated

¹³² Al-Ghazali, *Imam Gazzali's Ihya Ulum-Id-Din.*, vol. IV, p. 95.

according to canonical or universal standards, low-value copper coins depended on what was considered to be the “coin of the country,” or the common coins circulating at any time. Their circulation was permitted, whatever its alloy and intrinsic value, if the circumstances or the practice of the country (a “changing convention,” in fact) so determined. We saw then, how it was in the sphere of copper coinage where manipulation, debasement and counterfeiting of the value of the coin more easily occurred.

In Islamic jurisprudence the use of copper was always problematic. Copper coins were not considered “money” or “legal tender” in the proper sense. They were instead mere token coins for small transactions, usually exchanged by tale, given their insignificant intrinsic value. Their use was even questioned or regarded as suspicious by some schools of jurisprudence, among them, the Shāfi‘ī school of Islamic jurisprudence, to which al-Maqrīzī changed at some point in his career, and which some authors considered as the one with a more strict position concerning copper.¹³³ This seems, however, contradictory with what I have observed in al-Ghazālī, al-Ukhuwwah, and al-Maqrīzī.¹³⁴

The use and value of copper coins, in any case, were not regulated by Islamic jurisprudence as part of the canonic monetary system. This left a gap in regulation that affected a broad sector of the population, especially from the 13th century on, given the progressively widespread use of copper coins. The appearance of a copper money of account introduced then a larger source of distortion. Playing the role of a measure of value without being regulated, the ambivalent copper money of account left the door open for monetary manipulation.

Al-Maqrīzī, a jurist, *muḥtasib* and ‘*ulama*, or learned man in religious science, was perfectly aware of the body of rules that in Islamic law govern *sarf*, the exchange of precious metals. He reiterates several times that the only coins suitable for use as legal tender are silver and gold, and denounces how the use of copper coins, which he accepts for small

¹³³ The change of school seems to have been a strategical move in his career in the public service, given the dominant position of the Shāfi‘ī School in the Egyptian environment. For different aspects of that decision in the life of al-Maqrīzī, see: Rabbat, “Who Was Al-Maqrīzī? A Biographical Sketch”, pp. 12-15. The Shāfi‘ī School, the less liberal in terms of economic and monetary issues, does not approve the use of copper or other metals as low value coins, in contrast with the rest of the schools that allow for the use of copper if it is for small quantities and small daily transactions. “Al-Maqrīzī’s argument was based on the Shāfi‘ī doctrine that only gold and silver are valid metals for currency and that to use others would be to contravene the law and to cheat people of what they are due.” Brunschwig’s “Conceptions monétaires chez les juristes musulmans (VIIIe-XIIIe siècles),” *Arabica* 14 (1967): 113-143. Quoted in Meloy, “The Merits of Economic History: Re-Reading Al-Maqrīzī’s *Ighâthah* and *Shudûr*”, p. 189.

¹³⁴ In fact, according to Sarton the Shāfi‘ī School is characterized by its relative “eclecticism and moderation.” Sarton, *Introduction to the History of Science (3 Vols.)*. (1947), vol. III, part I, p. 102.

transactions, extended into the last part of the 14th century to become almost a legal tender used for all kinds of transactions at the beginning of the 15th century.¹³⁵

Al-Maqrīzī, then, was trying to cover the gap in the legislation about copper. On the one hand, he denies the fact that copper coins may be used as the money of account, to set general prices and wages, as happened with the *dirham fulūs* at that time. On the other hand, he progressively accepts the reality that copper coins are used and so proposes to regulate their value, according to their cost and minting expenses, and hence, set their equivalence with other coins. He basically recommends that small change should circulate according to its intrinsic value but its sphere of circulation should be reduced.

Al-Maqrīzī attempts to establish a group of monetary principles that go in the direction of keeping the whole system in equilibrium and granting stability to the entire monetary structure.¹³⁶ Al-Maqrīzī, as market supervisor in Cairo and as advisor of the *Mamlūk* officials and administrators, attempts not only to control the quantity of money in the economy and, hence, the price levels, but also to keep the entire multi-metallic monetary system under control. His objective is to regulate the precious metals used as legal tender, allowing for a certain amount of base metal coinages for small transactions. In spite of this, al-Maqrīzī does not however offer any particular mechanism to determine the quantity of those petty coins. He seems to consider the supply of metals quite stable, once corruption by the officials in charge of the mint is stopped and once copper coins are restricted to only small

¹³⁵ Al-Maqrīzī clearly distinguishes between token coins used for practical necessities of day-to-day markets and currency or money of account that serves as standard of value. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*., pp. 112; Wiet, ed., *Le Traité Des Famines De Maqrīzī*., p. 65; and al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 139. In the *Shudūr* he clarifies further his view on copper saying that copper coins are not money although resemble it, being a kind of secondary category of money, adjoined to it. It may refer also to the fact that they do not have value in themselves, being something that resembles something but it is not, and for that reason it becomes a secondary thing besides it. "*wa al-fulūs innamā hia 'ashbahu shya' balā shya' fayaṣiru al-madāfa madāfan ilayhi*." al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 135. Eustache translates this part as explaining that copper coins are nothing but the appearance of something else and an accessory of the main thing. al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 134. He also adds that although people used copper coins for petty sales, they never called it (definitive) money. "*wa lam yasma 'abadān dhalika ash-shaya al-ladhi ja'ala lil-muḥqarāt nuqūdān al-battatan*." al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 139. De Sacy translated: "*les fels ne son qu'une apparence sans réalité*." al-Maqrīzī, *Historia Monetæ Arabicæ E Codice Escorialensi Cum Variis Duorum Codicum Leidensium Lectionibus et Excerptis Anecdotis* [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd]., p. 51.

¹³⁶ Indeed among the advantages that al-Maqrīzī assigns to the monetary measures, he mentions that they would keep the gold and copper that people have fixed, stable, without ups and downs (increases or decrease). "*Min ḡayri ziyādah wa lā naqṣi*." al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*., p. 133. Indeed, Oualalou states that the *Shudūr*: "*mettre en lumière quelques considérations relatives au pouvoir et au rôle de la monnaie en tant qu'élément constitutif de l'équilibre de l'économie*." Oualalou, *La Pensée Socio-Économique De Al-Maqrizi*., p. 48.

transactions. Al-Maqrīzī is aware of the impact international markets have at certain times, as in the case of the importation of copper at the end of the 14th century, but he does not accept it as a factor to be considered for the stability of the system.

IV.2.2. The quantity dimension in al-Maqrīzī's analysis of monetary inflation

I would like to oppose the general conception that states that al-Maqrīzī criticized debasement, observed the consequences of Gresham's law, and hold an approach similar to that of Malestroit in the discussion between prices and money (that is, to see the debasement of money as the source of inflation). Instead, my argument is that al-Maqrīzī was discussing the problem of small change and observed the role the quantity of those small coins played in generating the (petty change) monetary inflation. Hennequin, in relation to the *Shudhūr*, and without putting it together with the *Ighāthah*, had already pointed out that al-Maqrīzī dealt with the "technical" problems of petty change, an aspect that I would like to take up again.¹³⁷ However, he underestimated as well the quantity element of al-Maqrīzī's analysis who, contrarily, says to focus on coinage, the circulation of coins of different denomination and value, and, so, the consequences of Gresham's law, as other authors will also argued after him.¹³⁸ Although analysing together both the *Ighāthah* and the *Shudhūr*, Meloy stated, similarly, that: "al-Maqrīzī seems not to have been aware of the importance of regulating the quantity of copper money in circulation."¹³⁹ I think the opposite was true.

Al-Maqrīzī declared that copper coins could not be used as the money of account (as a general standard of value to set prices and wages) and that its use must be limited to small transactions. He explained that it was as a result of its widespread use and circulation in large quantities that inflation and economic crisis appeared, as seen in the *Ighāthah*, which is quoted repeatedly in the *Shudhūr*. Al-Maqrīzī's proposals aimed at having copper coins circulate in small quantities.

In contrast to the position of other jurists or scholars, who also argued for the stability of the rates of the monies of account and the strict use of gold and silver coins as legal tender, al-Maqrīzī did not focus simply on fluctuations and changes in the value of money, denouncing

¹³⁷ "Du point de vue de la demande quantitative de monnaie, seul paraît évoquer de façon explicite le problème technique de la petite monnaie." Hennequin, "Monnaie Ou Monnayage? En Relisant Le Traité De Monnaies D'al-Maqrizi", p. 319.

¹³⁸ "Quantitativement, rien qui ressemble, même de loin, à une approche de la notion de masse monétaire, sauf peut-être sous l'angle très aigu de la limitation de la frappe des fulūs." Ibid., p. 319. We must remember again that he is examining only the *Shudhūr*.

¹³⁹ Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī's *Ighāthah* and *Shudūr*", p. 201

merely its devaluation or debasement. In the *Ighāthah*, he noticed and pointed out the impact that the circulation of copper had on prices. Moreover, by an analysis of how these prices had increased in a group of basic goods, he observed the repercussions this had on the acquisition capacity of money in general, in all forms of rents and wages.¹⁴⁰

Therefore, my conclusion is that al-Maqrīzī did care about the quantity dimension of small change, and moreover, observed the relationship between the quantity of those coins in circulation and prices. None of the authors studying the monetary dimension of al-Maqrīzī's work have emphasized this factor enough, or they have underestimated it.

As mentioned, Oualalou had brought to light the monetary content of al-Maqrīzī's *Ighāthah* and *Shudūr* and its relevance in the analysis of the relationship between money and prices.¹⁴¹ He emphasized two aspects of al-Maqrīzī's monetary thinking: his perception that silver and gold were pouring out of Egypt while the amount of copper was increasing; and his observation that the increase in copper was the main cause of inflation. Oualalou compares the first notion to what is called Gresham's law. As to the quantitative element, Oualalou discusses it in the framework of the debate between Malestroit and Bodin, which we will see in the following chapter. Although he affirms that al-Maqrīzī's analysis comes close to that of Bodin, and compares it even with Irving Fisher, because it observes the impact that the quantity of money, in relation to the total amount of goods, had on prices, Oualalou finally suggests that it is closer to that of Malestroit.¹⁴² Therefore, even if he highlighted that quantitative component of al-Maqrīzī's monetary analysis and proposals for monetary reform, some of his statement seems to emphasize that Gresham's law "*sur le bimétalisme*" is the main contribution of al-Maqrīzī's works.¹⁴³ Similarly did Essid, who considered that al-Maqrīzī approaches modern economic theories such as the quantity theory of money, or

¹⁴⁰ See note 58.

¹⁴¹ Oualalou, *La Pensée Socio-Économique De Al-Maqrizi.*, p. 4.

¹⁴² Previously he says : "L'analyse d'ELMAKRIZI se rapproche de celle de Bodin, dans la mesure où il montre que la quantité de monnaie disponible en comparaison avec l'offre des biens sur le marché agit sur les prix." (...) "C'est pour cela qu'il demande à ce qu'on rattache les monnaies en cuivre à l'étalon argent afin que la définition de la valeur de ces pièces soit directement liée au rapport de change avec la monnaie argent et que la quantité des fous soit limitée." Oualalou, *La Pensée Socio-Économique De Al-Maqrizi.* pp. 77, 78 & 68 (mention to Fisher in p. 5). The latter part is only explained in the *Shudūr*. al-Maqrīzī, *Thalath Rasa'il (I) Al-Nuqud Al-Islamiyah.*, p. 19.

¹⁴³ "Par ailleurs, il insiste à plusieurs reprises sur la nécessité d'appliquer une réforme monétaire qui tendrait à diminuer la masse monétaire, à mettre fin à la circulation des fous et à rétablir le règne de l'argent à défaut de celui de l'or." Oualalou, *La Pensée Socio-Économique De Al-Maqrizi.*, pp. 94, 4 & 78. Probably, Oualalou identification of al-Maqrīzī's approach with those of Gresham and Malestroit, comes from his intention of drawing a parallelism between the situation of Mamlūk Egypt and that of Arab countries at his time, and denouncing in this way the political causes of the crisis, as can be observed in the introduction and the conclusions of his study.

Gresham's law, is determined against the "debasement of gold and silver coinage" and, concluding, "formulated a generalized Gresham's law applying to all facets of life."¹⁴⁴ Since then, it has been acknowledged as such, without taking into consideration the quantity component of al-Maqrīzī's monetary proposals.¹⁴⁵

Allouche stressed as well the monetary emphasis of al-Maqrīzī's political proposals and also how the Muslim scholar denounced the fact that the Mamlūk authorities had "flooded the market with copper *fulūs*."¹⁴⁶ However, in his analysis of al-Maqrīzī's explanation of the economic crisis and inflation in Egypt, Allouche did not stress the increase in the circulation and quantity of copper coins. Instead he focused on the change in the nature of coins (from silver to copper). Hence, the conclusion of Allouche's interpretation was that al-Maqrīzī was pinpointing monetary manipulations (or debasement) and the abandonment of the silver standard as being responsible for the inflation, without emphasizing the role played by the amount of money in his analysis. In his article published two years later, Mark Tomass decided to translate some sections of the work in order to locate its "proper place in the evolution of economic thinking".¹⁴⁷ However, although he translated the parts where al-Maqrīzī denounces the importation of copper from Europe and the increase "in the [quantity] of copper coins," and both his translation and interpretations take into account that quantity element as making copper coins to depreciate, Tomass neglected or avoided to speak of the quantity element in al-Maqrīzī's analysis.¹⁴⁸ He makes even no reference to the latter's views

¹⁴⁴ Essid, "Islamic Economic Thought.", p. 96.

¹⁴⁵ In reference to Oualalou's study, Urvoy compares al-Maqrīzī with Oresme and Gresham. Urvoy, "Les Vues D'averroès Sur La Monnaie Comme Intermediaires Entre Celles D'aristote Et Celles Des Averroïstes Latins.", p. 202. Even Islahi's last book recognizes certain quantitivism in Ibn Taimīyah's statements but, in contrast, al-Maqrīzī's merits are only highlighted in relation to his critiques to debasement and his acknowledgement of Gresham's law, despite quoting the mentioned paragraph where al-Maqrīzī denounces Barqūq's increase of the quantity of copper coins in circulation. Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis (11-905 A. H./632-1500 A. D.)*, p. 50.

¹⁴⁶ Allouche, *Mamluk Economics : A Study and Translation of Al-Maqrizi's Ighathah.*, p. 13.

¹⁴⁷ Tomass, "Al-Maqrizi's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.", p. 111.

¹⁴⁸ For instance, in relation to the causes of the whole crisis of 1405, Tomass translated the "excessive increase in the circulation of money" (Ibid., p. 129); while al-Maqrīzī simply spoke of "*az-ziyāda al-kabīra [min al-fulūs]*," (al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah.*, p. 118); that is an "big increase or surplus of copper coins." However, then, when translating the same section in the *Shudhūr*, Tomass indeed correctly translated: "he exceed the limits in increasing [the quantity] of flous." Elsewhere he also speaks in terms of "quantity of flous" (pp. 130, 132 and 135). The fact that Tomass did not highlight the quantity element in al-Maqrīzī's analysis of monetary inflation is surprising, given that, commenting on al-Maqrīzī's conclusions, he explains that al-Maqrīzī considers prices in gold and silver coins to be more stable than in copper because "copper can be produced more abundantly and is relatively less scarce" (p. 141); which means that the amount of copper can be easily increased and hence affect prices. Tomass also explains that: "Al-Maqrizi is referring to the fact that the Alexandria mint has surpassed the Cairo mint in its increase of the money supply, thus causing the dirham-flous to depreciate against the dinar to half of its equivalent in Cairo" (p. 131); again a hint to the quantity aspect. The

as either close to the quantity theory of money or to Gresham law. His reflections set simply that al-Maqrīzī deals with the debasement of money and the excessive circulation of money, among other economic and political aspects.¹⁴⁹ In keeping with Allouche, later Meloy emphasized the monetary nature of the religious background against which al-Maqrīzī wrote. From this perspective, Meloy saw al-Maqrīzī's monetary proposals as in accordance with a "canonical management of the monetary system" or "monetary *sunnah*", rooted in the Shāfi'i religious tradition of the author.¹⁵⁰ Meloy's work represented an important contribution to placing al-Maqrīzī's work in its own intellectual and conceptual framework. Yet, at no time does Meloy comment on or analyse the monetary character of this canonical tradition in the framework of the history of monetary management or of economic thought.¹⁵¹

My arguments maintaining that Taqī ad-Dīn al-Maqrīzī's fifteenth-century monetary remarks, particularly in his treatise *Ighāthah al-Ummah bi-Kashf al-Ghummah*, underlie an intuitive understanding of the quantity theory of money, are based on the following points:

a. The focus on inflation or rising/high prices

As mentioned, first Essid, translating it has high or rising prices, and then, particularly, Allouche had already indicated a key element of my argument: the translation of the term *ghalā* as meaning inflation (or rising prices) and not dearth or famine, as it was traditionally

argument for considering al-Maqrīzī's indictment to address simply debasement or Gresham's law could come from Tomass' reference to value in the translation of "*ikhtilāf an-nuqūd*," which is "the inequality between currencies," the different purchasing power of silver and copper dirhams to which al-Maqrīzī refers to explain the loss in rents (al-Maqrīzī, 1940, pp. 119 and 122). Tomass translates it as "the difference in [the value of] the coins" (pp. 131 and 133) or "the coins became different" (as qualified in note 25). However, he properly appraised it later as such loss in the purchasing power of copper coins in comparison to silver ones, and not a change in the value of one of them (note 50 and 67 of Tomass' text). Wiet had translated that the merchant thought they have gained more because of the "confusion of coins:" « *le malheureux prétend avoir réalisé des gains, alors qu'en réalité il s'est appauvri. Espérons que le voile se déchirera sous peu pour lui : il verra alors que lui coûte son entretien, ce qu'il a perdu par suite de la confusion des monnaies* » al-Maqrīzī, *Le Traité Des Famines De Maqrīzī*, p. 73.

¹⁴⁹ Tomass defends that al-Maqrīzī has seen "what contemporary economic writers call confirmed generalizations;" but "falls short of the standards that economists require in order to characterize his narration as truly 'economic theory'." He highlights, however, that "Al-Maqrīzī breaks new ground when he lays down general observations about the relationships among production, income, taxes, and prices. His book also outlines a vision of economic processes relating these variables and establishes the monetary standards for maintaining smooth trade conditions and stable levels of living standards." Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary." pp. 142-143.

¹⁵⁰ Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī's *Ighāthah* and *Shudūr*," p. 191.

¹⁵¹ *Ibid.*, p. 191. It is also surprising to observe how Meloy relates al-Maqrīzī's approach to "religious monetarism," but not to "modern" monetarism. However, at the same time, he is interpreting al-Maqrīzī's explanation in the quantitative terms that characterize "modern" monetarism: "His [al-Maqrīzī] point was that the dearth of 806 was (...) an inflationary event caused simply by the overproduction of copper money and the resulting replacement of silver as a legal tender with copper." Maybe Meloy is taking for granted the quantitative character of al-Maqrīzī's "monetary *sunnah*." He does not explain it nonetheless. Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī's *Ighāthah* and *Shudūr*," p. 194.

translated after Wiet's version of the treatise.¹⁵² Indeed, it must be noted that half of the *Ighāthah* is dedicated to highlighting that the inflationary period Egypt was experiencing at that time (1403-06) is different from previous ones in that it was caused by man-made (monetary) factors. All along, in the historical review of previous crises caused by insufficient increase of the Nile's water, prices are the main protagonist. Al-Maqrīzī qualifies these periods as being those of misfortune, plague or "horrible disaster" (*miḥan*, *balā'* or *al-muṣāb al-shanī'*) but from the beginning connects them to prices and inflation, using the term *si'r* (pl. *as'ār* – price, rate, exchange rate) and *ghalā'* (increase in prices).¹⁵³ He uses the term *ghalā'* to name each of every historical crisis described. Indeed, the inappropriate translation of *ghalā'* as "famine," already noted, is particularly inaccurate when we take the overall theme of that section into account. In this section, al-Maqrīzī is not just providing reports on prices; what he shows is how the different shortages in the water level of the Nile, at different times in Egyptian history, reflected high prices in different foodstuffs and wages. In this way, the more clear evidence for *ghalā'* relating to periods of inflation is al-Maqrīzī's continuous reference to increases in prices in each of those crises recounted. In all of them, al-Maqrīzī explains the causes of the inflation; he presents data about the water levels of the Nile, the consequent increase in prices, the impact on money, the situation of the population; and the reactions of the authorities.¹⁵⁴ The attention to prices is maintained all along in the *Ighāthah*, while in the *Shudhūr* there is no emphasis on inflation, probably because those years were characterized by a certain price normality in relation to the standards of the previous

¹⁵² Allouche, *Mamluk Economics : A Study and Translation of Al-Maqrizi's Ighathah*., pp. 10-12.

¹⁵³ *Ghalā'* can be translated as increase or excess. Allouche collects how in 1312 Ibn Manzūr described it as "the increase and the exceeding of a limit." In relation to prices it was used as the opposite to periods of cheap foodstuffs. Allouche indeed refers to a ḥadīth in which it appears in the following context: "Muḥammad responded that the *ghalā'* and *rukhs* of prices are in God's hand and added that he wanted to meet God without having to answer for some injustice that he might commit in this respect." *Rukhs* could be translated then as deflation or low prices and *ghalā'* as inflation or high prices. Ibid., pp. 10-11. There is however an unquestionable relation between inflation, the loss in the acquisitive capacity of the people, and famines, as Allouche also comments. Meloy defends that it has to be taken into consideration that Arabic chronicles understood prices as economic, social, and demographic indicators. Meloy, "The Merits of Economic History: Re-Reading Al-Maqrīzī's Ighāthah and Shudūr", p. 189. Allouche and Meloy propose to translate *ghalā'* as "dearth", since it both implies scarcity and inflation. Ibid., p. 194. Tomass uses "high prices and famines" Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary." pp. 115 & 119. I prefer 'Āshūr's interpretation of *ghalā'* as "economic crisis" (*al-azmāh al-iqtisādiyyah*), considering that we are speaking about inflationary crises. 'Āshūr, "Taqdīm.", p. 12. Minost seemed to take this option, as well, since, speaking about the *Ighāthah*, he clarified: "un *Traité des Famines* c'est-à-dire un *Traité des crises économiques*." Minost, "Au Sujet Du *Traité Des Monnaies Musulmanes De Maqrizi*." p. 47. Oualalou translated it as (socio-economic) difficulties. Oualalou, *La Pensée Socio-Économique De Al-Maqrizi*., p. 70. "la hausse est de l'ordre du dépressionnaire et sa persistance de celui de la tempête annoncée, quand les prix bougent (taharraka as-si'r) telle une brise inoffensive avant la levée de ce vent chaud du *ghalā'* – Le Liṣān fait procéder *ghalāiān*, bouillonnement, de la même racine – et c'est alors le feu destructeur, celui des prix que flambent. Essid, "Introduction.", p. 15.

¹⁵⁴ See note 27.

century.¹⁵⁵ Prices are the variable he uses to quantify the economic crises of 1403-06, on which al-Maqrīzī gives a whole report about the impact the measures of Barqūq's administration had on prices in Cairo and Alexandria.¹⁵⁶

b. The quantity parameters of al-Maqrīzī's analysis

The third cause that al-Maqrīzī gives in the *Ighāthah* for the 1403-06 crisis or *ghalā'* is the circulation of *fulūs*, which Wiet translated as: "*cours legal des monnaies de cuivre*."¹⁵⁷ Al-Maqrīzī condemns the use of copper coins as legal tender, their "cours legal", but the facts that he describes to explain later that third cause, as we saw, were: the importation of copper, its massive minting, and copper becoming abundant in the hands of people, all referring to its quantity dimension.¹⁵⁸ Both in the *Ighāthah* and the *Shudhūr*, he insists that in previous periods and countries in history, those copper coins were, in contrast, used only for minor transactions and could be found or obtained only in small amounts, while when the Turks resumed the use of copper coins in Egypt, "there were more in the hands of people".¹⁵⁹

Tomass's translation mentions the importation of copper, but is less clear than Wiet in respect to the role the augmentation of copper coins had.¹⁶⁰ Al-Maqrīzī does not use the term

¹⁵⁵ Lapidus, *Muslim Cities in the Later Middle Ages.*, p.32.

¹⁵⁶ As in the Preface, al-Maqrīzī ends the analysis of the current situation giving a report on prices, considering their increase as one of the signals of the economic crisis and one of the problems to be solved. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah.*, pp. 127-30.

¹⁵⁷ "*Rawāj al-fulūs*" *Ibid.*, p. 86. al-Maqrīzī, *Le Traité Des Famines De Maqrīzī.*, p. 49.

¹⁵⁸ He blames the mentioned Maḥmūd Ibn 'Alī, Barqūq's 'Ustādār, in charge of the sultan's funds (*al-amwāl as-sultāniyyah*), who, with the aim of enlarging his own fortune, produced (*'ahḍaṭa*) a huge increase/excess (*ziyādat*) of *fulūs*; sent out [a delegation] to the land of the Franks (*firanja*, Europe) to bring/import (*jalaba*) red copper; taking then the control over the minting house of Cairo and minting (*ḍarb*) *fulūs* there, as well as in the mint of Alexandria, all through out his days. As a result, al-Maqrīzī explains how the amount of *fulūs* "in the hands of people" increased and their circulation spread till copper coins became the dominating coin in the country. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah.*, p. 118; Wiet, ed., *Le Traité Des Famines De Maqrīzī.*, pp. 69-70.

¹⁵⁹ al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah.*, p. 116; Wiet, ed., *Le Traité Des Famines De Maqrīzī.*, p. 68. In previous epochs, they were only used for small transactions: "*wa lā yakāda yū'akhadhu* (or *yuwajadu*) *minhā ilā al-yasīr*," (*al-yasīr* in Eustache's edition, but probably an error since it appears as *al-yasīr*, small, in both Leiden and El Escorial manuscripts). al-Maqrīzī and (trans.), "Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudūr Al-'Uqūd Fi Dhikr Al-Nuqūd].", p. 139; Mss. Or. 560 (2), f. 15 (Leiden); Mss. 1771 El Escorial, f. 20b.

¹⁶⁰ [Maḥmūd Ibn 'Alī's] "appetite to profit and amass wealth was the cause for the excessive increase in the circulation of flous. He imported copper from Europe and secured the mint in Cairo with an amount of money. Flous continue to be minted there during his appointment; he also took on a mint in Alexandria in order to produce flous" Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary." p. 129. Wiet's translation of this point directs more clearly towards a quantity interpretation of the text: "[le majordome] fit fabriquer de grandes quantités de monnaies de cuivre. Il envoya des missions en Europe pour importer du cuivre rouge. Il afferma l'Hôtel des monnaies au Caire pour un somme importante et, pendant toute la durée de sa gestion, la frappe de monnaies de cuivre augmenta. En outre, un Hôtel des monnaies fut fondé à Alexandrie pour la frappe des pièces de cuivre" al-Maqrīzī, *Le Traité Des Famines De Maqrīzī.*, pp. 69-70.

“*rawāj*” (circulation, saleability, sales), as he did before and as Tomass translates here (“circulation of copper coins”), but instead uses “*az-ziādah al-kabirah [min al-fulūs]*,” which means “a big increase, excess or surplus, of copper coins.”¹⁶¹ Al-Maqrīzī is referring to the volume of money in circulation as a result of the increase in its minting, thanks to the newly imported copper.

At the end of the treatise, in the section analysing the current situation of prices, the reference to quantity appears anew.¹⁶² Moreover, when al-Maqrīzī explained that copper coins had been used in other regions and times only for small transactions, he emphasizes that then they were to be found only in small quantities (*an-nazra al-yasīra*).¹⁶³

As mentioned, his indictment has been taken as criticizing the debasement of the coin and, hence signaling the consequences of Gresham’s law.¹⁶⁴ However, although, in the section telling the history of the different uses of coins, al-Maqrīzī criticised those times when the monetary Islamic standards were abandoned and money debased, the focus in the current period was on the increase in the number of copper coins in circulation.¹⁶⁵

¹⁶¹ See note 48. ‘Āshūr confirms that it refers to Barqūq’s administration augmenting the “minting” of copper coins (*iakthurūn min ḍarbi al-fulūs an-nuḥāsiyyah*). ‘Āshūr, “Taqdīm.” pp. 12-13.

¹⁶² Later, in the sixth section, in explaining the current situation and prices, al-Maqrīzī repeats again how the problem is due to the use of copper coins because people have created them in exchange or return for any commodity. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*., p. 125 ; Accordingly, Wiet translates « *que la stabilisation définitive des conditions de vie de la population, en territoire égyptien, a été commandée, en matière de monnaies, tout spécialement par la création des pièces de cuivre comme contre-partie de tous les articles en vente, soit, pour toutes sortes de victuailles...* » al-Maqrīzī, *Le Traité Des Famines De Maqrīzī*., p. 75. However the verb “*ja’ala*,” that we have translated as “to create,” (or “to make, bring about,” etc.), can also translate as “to lay, appoint, fix or set.” In this line, Tomass translated “that the people of Egypt have settled on the flous to be the coins which they accept in all sales. With them, they pay for all kind of foodstuffs...” Tomass, “Al-Maqrīzī’s Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.” p. 134. In any case and except in this part where the translation is particularly confusing, Tomass seems to try to avoid any reference to quantity and reads the whole text according to his interpretation of the monetary phenomena as debasement or simple monetary change. It is only at the end of the sixth section that Tomass translates the issue in terms of quantity. This time al-Maqrīzī uses the term “*kathrah al-fulūs*” which means “large quantity, great number, multitude, abundance” of copper coins, and both Tomass and Wiet translate it as an increase in the quantity of copper coins. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*.p. 130; “higher quantity of flous,” Tomass, “Al-Maqrīzī’s Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.” p. 135; “*afflux des pièces de cuivre*” al-Maqrīzī, *Le Traité Des Famines De Maqrīzī*., p. 78.

¹⁶³ “*wa lā yakādu yūjadu min hādhihi al-fulūs ilā an-nazra al-yasīra*” al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*., p. 112; Wiet, ed., *Le Traité Des Famines De Maqrīzī*., p. 66. Also in the *Shudhūr* : « *mais jamais on n’en faisoit qu’une très petite quantité* », al-Maqrīzī, *Historia Monetæ Arabicæ E Codice Escorialensi Cum Variis Duorum Codicum Leidensium Lectionibus et Excerptis Anecdosis*[*Shudūr Al-‘Uqūd Fi Dhikr Al-Nuqūd*]., p. 55.

¹⁶⁴ Essid suggested that the third cause, which al-Maqrīzī’s pointed out, was “the debasement of the money supply through the proliferation of copper currency.” Essid, “Islamic Economic Thought.”, p. 94.

¹⁶⁵ Using the term *ghashsh*, adulteration, deceit, debasement; *tughsh*, the mix or adulterated coin; or *ṣāra nuqṣān*, to make something decrease, diminish or be defective, imperfect; al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*., p. 104, 106 and 131; al-Maqrīzī, *Le Traité Des Famines De Maqrīzī*., pp. 60-61; Tomass, “Al-

The debasement of money led to similar outcomes to those created by the increase in the monetary base of the economy: it enhanced the re-minting of coins (of good into bad coins or coins of less metallic content), increased the amount of coins in circulation and, hence, contributed to inflation from the demand-side. Furthermore, it made the so-called Gresham's law, that bad money drives out good money, come into force. However, Gresham's law appears in cases where two coins of the same denomination and course, but of different quality, compete. This was perfectly illustrated by the case of the dinar versus the ducat in the 15th century, which Bacharach assessed.¹⁶⁶ As we have seen in the second chapter, when one of two competing, almost identical, coins was debased, it made it profitable to sell or melt the good (not-debased) ones and re-mint them into the bad (debased) ones. The trick worked out particularly well because at first glance, or just after the debasement, the two coins were taken as being interchangeable.

In al-Maqrīzī's narrative, the crisis did not originate from a debasement of the silver coin, which drove out the good coin, but from the increase in the amount of copper in the context of silver famine. It was the increase in the quantity of copper coins and not their debasement that had an impact on prices and on the exchange rates between copper and silver coins, leading to the dominance of copper coins and the disappearance of silver ones. Al-Maqrīzī was not describing the consequences of debasement or Gresham's law (copper driving out gold and silver coins), which some authors have argued. He was rather referring to the consequences of the problem of small change. He then observed the quantity dimension in monetary changes and, moreover, in monetary inflation.

c. The relative value of money in relation to other commodities

In the *Ighāthah*, al-Maqrīzī points out how wealth was eroded, or exhausted (*aḍḥabat al-māl*).¹⁶⁷ He observes the impact inflation had on the purchasing power of rent, and analyses it in the seven social classes that formed Egyptian society, as we saw. In this way, he takes into consideration the relationship between the value of money and the value of other commodities in the economy, and considers the value of money in "real" terms.

d. The link between prices and quantity of coins

Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary."p. 122.

¹⁶⁶ Bacharach, "The Dinar Versus the Ducat."

¹⁶⁷ al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah.*, p. 119. al-Maqrīzī, *Le Traité Des Famines De Maqrīzī.*, p. 70; Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary."pp. 130-31.

The main link between prices and the quantity of coins appears in the argument of the treatise itself: al-Maqrīzī relates the period of inflation in 1403-06 to the increase in the amount of copper coins that occurred in previous years.¹⁶⁸ Having said this, al-Maqrīzī's mechanism for solving the crisis and restoring prices to their initial level, has two sides: first, he considers that restoring the relative value of coins, their exchange rate, to their previous levels will solve the crisis. Second, he calls for using copper only for small transactions, which implicitly means to reduce the use of copper coins or take them out of circulation.¹⁶⁹ However, the quantity element in the relationship between money and prices here is not clear, neither is the mechanism that would restore the situation to the previous parameters. There is a clue later in the *Shudhūr*. In this second treatise, although the focus on prices vanishes, there is a comment explaining how during the period before the inflation (when prices were lower before copper became abundant) things were bought with a small number of petty coins.¹⁷⁰

It is also difficult to assess whether the second advantage al-Maqrīzī claims for his proposal – that the gold and copper that people have in their hands will remain without increase or decrease – refers to quantity or value.¹⁷¹ However surprisingly, here both Wiet and Tomass leaned towards interpreting it as al-Maqrīzī referring to the quantity of coins people possess, which again goes to support my argument.¹⁷²

¹⁶⁸ The increase in prices produced had no precedents, but the causes of the crisis were three: the corruption, high price of land and the circulation of copper coins (*rawāj fulūs*). al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*., p. 86. Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary." p. 122. Previously, al-Maqrīzī had recounted that the increase in prices of 1399-1400, after the death of sultan Barqūq, was not related to any real factor. The price of a unit of wheat increased a 133% in a year. Then he recounts how when the Nile receded again in 1403-1404 the increase in prices that followed reached a rate of 470% in the case of wheat, extending to food, drinks, clothes and wages, much more than the usual in this cases. al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*., pp. 78-80. Wiet, ed., *Le Traité Des Famines De Maqrīzī*., 43-45.

¹⁶⁹ Copper coins being used only for small things and household expenses: "*muḥqurāt al-mabī'āt wa naḥqāt al-buyūt*" al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*., p. 132; Wiet, ed., *Le Traité Des Famines De Maqrīzī*., p. 80; Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary."; p. 137.

¹⁷⁰ See note 79.

¹⁷¹ "*Min ḡayri ziyādah wa lā naqṣi*," al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummaḥ*., p. 134.

¹⁷² Wiet speaks of "*le second intérêt est le maintien dans les rapports presents de l'or et des monnaies de cuivre que la masse détient, qui sont en fait les monnaies légales, sans augmentation or diminution, ce qui doit amener le retour aux conditions de bien-être et de bon marché antérieures à l'apparition de cette crise.*" Wiet, ed., *Le Traité Des Famines De Maqrīzī*., p. 81. Tomass translates: "the second benefit is that people will continue to hold whatever they have now of gold and flous – which are now the dominant circulating money – without addition or diminution, with a return to prosperity and low prices to what conditions used to be before these hardships." Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary."; p. 138.

In sum, after analysing these points, my interpretation of al-Maqrīzī's text is the following: In his analysis, al-Maqrīzī connects the amount of metal (the monetary base) in the economy with the level of prices and in this way, he is introducing the quantity element that would become pivotal in the quantity theory of money. The objective behind al-Maqrīzī's proposal to impose solely the use of gold and silver coins, as legal tender, is to control the amount of money in circulation and, thus, prices. Perhaps this was an idea that was already permeating general knowledge about monetary management of multi-metallic systems in the Mediterranean during the fourteenth and fifteenth centuries, as Cipolla has pointed out. Or, perhaps it may reflect a monetary knowledge already implicit in the monetary thought of Islamic tradition: the above-mentioned "monetary *sunnah*," as termed by Meloy. The Islamic tradition and jurisprudence establishes the use of (only) gold and silver as money, to be exchanged in strict equivalence in weight. The equivalences between units of account and various coins are also defined and fixed.¹⁷³ Nevertheless, the quantity character of his analysis adds new dimensions to that tradition, and develops an explicit connection that was not present in scholastic or legal-administrative writings before. Al-Maqrīzī offers a harmonious combination of religious norms, customs, and empirical analysis in order to arrive to a rational solution to stabilize and control the monetary system. He is not only pointing to the consequences of Gresham's law but also the destructive results that an increase in the amount of petty coins in circulation has on prices, and hence, in the purchasing power of those coins. My argument is that al-Maqrīzī's monetary proposals imply that a fixed monetary system based on gold and silver as legal tender, plus copper coins as a medium of exchange for small transactions but whose quantity and minting is controlled, is not only beneficial because of its concordance with religious principles but also because it avoids the possibility of manipulating the quantity of low-value metal in the economy, and consequently avoids disruptive alterations in the total amount of money in circulation.

¹⁷³ A saying from the Prophet proclaims: "Sell Gold for Gold, from hand to hand, at an equal rate according to weight, for any inequality in point of weight is usury," *The Hedaya of Ali ibn Bakr*, Hamilton, B. y C. (tr.), London, 1791, vol. 2, 551-66; quoted in Grice-Hutchinson, *Early Economic Thought in Spain 1177-1740.*, p. 24. Also al-Shayzārī's manual of *ḥisba* says something similar: "It is not permitted for anyone to sell gold coins for gold, nor silver for silver except in the same quantities and by taking immediate possession," if not there is risk of *ribā*, usury. Warren C. Schultz, "It Has No Root among Any Community That Believes in Revealed Religion, nor Legal Foundation for Its Implementation": Placing Al-Maqrīzī's Comments on Money in a Wider Context," in *Mamlūk Studies Review (Symposium 'Medieval Arabic Historiography: The Legacy of Al-Maqrīzī (1364-1442)*, ed. Bruce Craig (Chicago: Middle East Documentation Center, 2003)., pp. 174-75.

IV.2.3. *Al-Maqrīzī's monetary thought versus other proposals for problems of small change, as the case of the quattrini in Florence*

Concerning the quantity dimension of money, Cipolla defended that the 1380 monetary reform introduced in Florence, in relation to the problem with the *quattrini*, represents “one of the earliest conscious and logical attempts to control the value of money through the control of its quantity.”¹⁷⁴ Bernocchi raises, however, other possible interpretations and I would like to present some further concerns that result from comparison of the two cases.

In the previous chapter we saw that, indeed, some parallels can be drawn between the case of the *quattrini* in late fourteenth-century Florence and the case of the *fulūs* in early fifteenth-century Egypt. I will analyze now the measures and proposals that in each case were raised to solve problems deriving from an excess of petty coins.

In contrast to Cipolla's, Bernocchi's opinion was that the reduction of *quattrini* in circulation attempted merely to rebalance the amount of silver that the large (or medium) coin contained in relation to the small coin.¹⁷⁵ Given the revaluation gold and silver experienced in terms of the copper coin, and the loss this meant for the purchasing power of wages paid in the latter, Bernocchi defended that the main objective of the labouring classes was to be paid in a stronger, silver coin.¹⁷⁶ However, there is no trace of a reference to silver in the proposal of 1380 or in any previous proposals. Given the scarcity of silver, and the low content of silver in the *quattrini*, I do not see how the minor guilds thought to resume the use of the silver coin through melting the copper one.¹⁷⁷

Following Rodolico, Cipolla's argument was that by destroying the excess of *quattrini* the actual intention was to raise the value of those remaining, in order to balance the relationship between the gold coin and the small coin, which had deteriorated over the

¹⁷⁴ “Evidentemente, los defensores de esta propuesta sabían muy bien que existe una relación entre el valor de cambio de la moneda y la cantidad de la misma que está en circulación (una idea que se suele atribuir a los “economistas” españoles y franceses del s. XVI). Así, al incidir en la cantidad, trataban de elevar el valor de cambio del quattrino por encima de su valore intrínseco, haciendo que circulara como moneda signo,” Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria*. “Such a proposal clearly indicated that those who prepared it fully realized that by restricting the quantity of the petty money in circulation they could increase its face value and keep its face value above the commodity value. The aim was to increase real wages, at least in the short run.” Carlo M. Cipolla, “Money, Prices, and Civilization in the Mediterranean World, Fifth to Seventeenth Century,” in *The Big Problem of the Petty Coins*, ed. Carlo M. Cipolla (New York: Gordian Press, 1956).p. 36.

¹⁷⁵ As commented, in 1378, a *lira* of *fiorini* contained 10.83 grs. of silver, while a *lira* of *quattrini* comprised only 8.84. Bernocchi, *Il Sistema Monetario Fiorentino E Le Leggi Del Governo Popolare Del 1378-1382.*, p. 33.

¹⁷⁶ Ibid., p. 34.

¹⁷⁷ As Bernocchi explains, the silver coin, the *grossi*, had basically disappeared from circulation. From data available in the ceca, from 1-11-1371 to 31-10-1374 they were minted more than 23 millions of coins, only 228 coins of silver (*Grossi Guelfi*). Ibid., p. 34.

century.¹⁷⁸ That seems to be the opinion of Gugliamo Guidi and others as well.¹⁷⁹ Bernocchi's argument against this interpretation is that at that time it was impossible to know the number of petty coins in circulation, so in that sense it was impossible to calculate how many of them had to be taken out of the market in order to raise their value to a certain point.¹⁸⁰ However, the fact that it was not possible to calculate the exact number of coins needed to raise their value to a certain magnitude does not mean that they did not perceive the relationship; that is, the opposite relationship between the number of coins and the value of coins (especially taking into consideration the palpable increase in the number of small coins after the invasion of Pisan *quattrini*). Hence, it is plausible that they attempted to raise their value somehow by reducing the amount in circulation. Besides, placed in a framework of previous contemporary attempts, which had been introduced to reduce the value of the gold coin in relation to the small coin, Cipolla's argument makes sense. The series of monetary reforms taken after the *tumulto dei Ciompi* reflect a certain learning process. The provision of July 1378 attempted to set by law the value of the florin in respect to the *quattrini*. Since this measure seemed to fail, the following provision on monetary issues, that of January 1379, took into consideration that different measures should be taken in order to set that rate at a lower value, and included additional measures in case it still did not work (changing the nominal value of the *quattrini*). And if this did not work either, the possibility of taking copper coins out of circulation was then proposed. Hence, the proposal attempted to achieve the reduction in value of the florin but by different, and indeed, innovative means: reducing physically the amount of *quattrini* in circulation. This is not necessarily opposed to Bernocchi's argument that labourers or even minor artisans wanted to be paid in a stronger coin. But what they attempted to do, in this respect, was to strengthen the *quattrino*. In this sense, I would support Cipolla's point and argue that the proposal of 1380 represents an innovative step in the analysis and management of monetary problems in pointing to the role that the quantity of money had in setting its value.

¹⁷⁸ "Se credeva che il ritiro della moneta spicciola, rendendola più rara, ne rincarasse il valore a scapito del florino, la moneta direi così dei ricchi." Rodolico, "Il Sistema Monetario E Le Classi Sociali Nel Medio Evo.", p. 469.

¹⁷⁹ Guidi does not refer to the action of melting the *quattrini* but simply highlights that the *provisione* 26-27 of October 1380 "muta in favore della moneta metallica il rapporto di valore con il fiorino d'oro." Guidi is using the chronicle of Marchionne di Coppo Stefani, who in his *Cronaca fiorentina* (p. 877), says: "questo fu per volontà degli artefici minori che si pagavano a soldi" while "li mercanti vendeano a fiorini"; Guidi, *Il Governo Della Città-Repubblica Di Firenze Del Primo Quattrocento.*, p. 200.

¹⁸⁰ Bernocchi, *Il Sistema Monetario Fiorentino E Le Leggi Del Governo Popolare Del 1378-1382.*, pp. 33-34.

Cipolla saw, nevertheless, other attributes in these proposals that I neither accept nor find completely accurate. Cipolla compared the defenders of these fourteenth-century proposals with the sixteenth-century writers who in Spain and France delineated the relationship between the exchange value of money and its quantity (the first articulations of the quantity theory of money that we will examine in the following chapter).¹⁸¹ His argument is that the Italian defenders of such proposals attempted to elevate the exchange value of the small coin, the *quattrino*, over its intrinsic value, making it circulate as token or fiduciary money. However, in the Florentine case, the defenders of the proposal maintained as a reference the rates of the mid-fourteenth-century because they considered the gold coin to be overvalued. Hence, it is not that they want to set the value of the small coin over its intrinsic value, and create a token coin, but to re-establish the previous monetary equilibria and rates.

There is no link made between the quantity of coins and its depreciation in terms of the value of other goods, nor evidence either that the measure attempted to stop inflation, as Cipolla seems to suggest when he says it is a deflationary policy or compares it to the ideas of the precursors of the quantity theory of money. Spufford argues that high prices of daily goods were a main concern among the population when they introduced the monetary reforms.¹⁸² Inflation, particularly the increase in prices affecting basic goods, was a key factor in the discontent of the masses in the 1370's and played a role in the *Ciompi* revolt. In the context of unemployment and economic recession in Summer 1378, which resulted in the impoverishment of the masses, the loss of the purchasing power of wages was of course a factor in mobilization.¹⁸³ According to the data provided by de la Roncière about prices and wages from 1280 to 1380, it is true indeed that there is a continuous and general increase in prices from 1368 to 1378, but after that no great inflation is recorded.¹⁸⁴ The measure to destroy *quattrini* dates from October 1380, so the role played by inflation as a factor leading to the reform is not clear. There is no evidence or reference that it was directed at decreasing

¹⁸¹ See Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria*., p. 211.

¹⁸² "they hoped that this would bring down not only the price of florin, but also that of other commodities. Veal, they pointed out, was selling in 1380 for 2s. 8d. the pound, although the official maximum price was 2 soldi de pound." Spufford, *Money and Its Use in Medieval Europe*., p. 333.

¹⁸³ De la Roncière showed that the loss in the purchasing power of wages had a relative character. The loss was higher in comparison to the situation of 1350-70, when given the economic conjuncture even humble workers had access to consumption patterns of higher (middle) classes. A characteristic of those years inflation was that the structure of prices came closer to the state of affairs before 1340. The relative value of meat increased, for example. de la Roncière, *Prix Et Salaires a Florence Au Xive Siecle (1280-1380)*., p. 790.

¹⁸⁴ It is part of a big period of inflation that goes from 1320-40 to 1368-78, however, from 1368 the main character the increases in prices take is that they affected most of the things, while before the intensity, periodicity and length of the increases of prices changed a lot between commodities. *Ibid.*, pp. 245 & 250.

prices and thus it is not possible to know if the authors of the proposal considered that reducing the number of small coins in circulation would cause prices to fall. Moreover, if we take into consideration other factors and the groups that stimulated the monetary reforms, the logic would appear to be otherwise. More than inflation or the loss in the purchasing power of wages, an important concern of both the guilds and groups behind the *Ciompi* revolts, particularly the minor guilds dominating the government that followed, as *de la Roncière* also explained, was the high weight which debts represented for them, since they were set in gold in a context where the gold coin was revaluated in respect to other coins.¹⁸⁵ As a result, and given previous attempts to reduce the value of gold in terms of silver and copper coins, the question of reducing the number of *quattrini* in circulation seems to reflect more a concern about the equilibrium and competing balance between coins of different denominations, and hence of the distribution of rents, than an explicit measure to end an inflationary period. Indeed, Zanetti, Vettori and other Italian economic historians seemed to have previously arrived at the simple conclusion that the proposal attempted to reduce the value of the gold coin.¹⁸⁶

Therefore, in line with Bernocchi's analysis, the main objective behind the different monetary proposals introduced in those years, was to revalue the small coin in relation to the gold coin. It does thus represent one of the first attempts to impose a direct and explicit "contractionary" monetary policy that entails an early knowledge or intuition about the relationship between the value of money and its quantity.¹⁸⁷ This however pertained to the value of a coin in respect to other coins or the money of reference, and not to other goods. The fall of the value of the small coin in relation to other currencies was seen as an outcome of the invasion of small change in respect to previous standards. So, as Cipolla contends, the 1380 monetary reform represents one of the earliest attempts to control the value of money by controlling its quantity.¹⁸⁸ However, it did not involve recognizing the relationship between

¹⁸⁵ Ibid., p. 772.

¹⁸⁶ Zanetti, Guido Antonio. *Nuova raccolta delle monete e zecche d'Italia*. Volume 1. Bologna, 1775-1789. 5 vols; in *The Making of the Modern World*. Thomson Gale. 2007. Thomson Gale. Università degli Studi di Firenze Trial (p. 335); Available in the web at: (07/04/2007) <http://0-galenet.galegroup.com/bibliosun.iue.it:80/servlet/MOME?af=RN&ae=U107780133&srchtp=a&ste=14>

¹⁸⁷ "Such a proposal clearly indicated that those who prepared it fully realized that by restricting the quantity of the petty money in circulation they could increase its face value and keep its face value above the commodity value. The aim was to increase real wages, at least in the short run." Cipolla, "Money, Prices, and Civilization in the Mediterranean World, Fifth to Seventeenth Century." p. 36.

¹⁸⁸ See note 174.

the quantity of money and its value in respect to other commodities in the economy and, hence, the behaviour of prices.¹⁸⁹

In contrast, we saw how in the proposals of al-Maqrīzī, in the case of the *fulūs* in Egypt, the link between the number of small coins in circulation and inflation was understood. The objective of the Florentine proposals was to increase the value of the small coins in relation to coins of other denominations which, given the different circuits of the coins was meant to rebalance the distribution of rent among the different social groups of the city. While the objective of the administration that ordered the gathering up again of copper in Egypt probably followed a similar logic, al-Maqrīzī's proposal, in contrast, was to reduce the amount of copper in circulation to avoid periods of inflation, like that generated by the abundance of copper. The two cases pointed to the quantity of money as a parameter with which to instrumentalize monetary management. However the causal relations perceived between the monetary variables were different.

Another aspect of comparison to be highlighted is that the monetary proposal introduced in Florence in 1380 attempted to seize more control over the mint. It granted the public officials of the city, the *Priori* and *Gonfalonieri*, at that time representatives of both the minor and major guilds, powers over the *ceca*, that had been until then, according to Bernocchi, under the sole supervision of one of the major guilds, l'Arti maggiori di Calimala e del Cambio.¹⁹⁰ This case links thus with the kind of bargaining for the right to coinage that Spufford recounted during the 12-13th century, and which have been mentioned in previous chapters. In that way, the proposal of al-Maqrīzī attempted as well to gain some sovereignty, not over the issue of money with gold and silver as legal tenders, but over petty change.¹⁹¹

This type of problem would reappear in larger dimensions fifty years after al-Maqrīzī wrote the first treatise, during the monetary contraction of 1440-60.¹⁹² In that period, the bullion flood generated a process of acute inflation, the "small change inflation" of 1440-66,

¹⁸⁹ The link between quantity and value of the coin was an economic relationship that Burgos merchants took also into consideration to present a proposal for regulating the minting of coins in early 15th century Castile. They committed to guarantee the supply of silver coins for the mint to maintain stable the value of the silver coin. The royal officials did not accept it because if the amount was known people would speculate against it and the measure would not have the expected outcomes. MacKay, *Money, Prices and Politics in Fifteenth-Century Castille.*, pp. 30-31. The argument resembles the debate in modern monetary economics about the role of rational expectations in forecasting next moves in monetary policy.

¹⁹⁰ Bernocchi, *Il Sistema Monetario Fiorentino E Le Leggi Del Governo Popolare Del 1378-1382.*, p. 29.

¹⁹¹ Another a pioneer experiment of controlling "quantity" also through "convertibility" is the privilege accorded by the Spanish King to the town of Barcelona in 1481. See Usher's study (1943, p. 232); quoted in Cipolla, *Money, Prices, and Civilization in the Mediterranean World, Fifth to Seventeenth Century.*, p. 35.

¹⁹² What Day terms "second bullion famine." Day, "The Great Bullion Famine of the Fifteenth Century." p. 45.

in Spuffordian terms.¹⁹³ New problems with black money invasions in the second half of the 15th century would bring new attempts to resolve these issues. In the case of ‘black money’ in Castile and Aragon from 1462 to 1474, Henri IV introduced a monetary reform that attempted to reduce the billon coins in circulation.¹⁹⁴ According to MacKay, the circulation of billon coins was also considered one of the causes of the inflation and the monetary instability of the period.¹⁹⁵ Proposals to control the amount of petty coins in circulation, in order to introduce certain equilibria with currencies of higher denomination, appear again in Florence during the next century. In 1535, Alexander di Medici attempts to control the parity and weight of the silver coin as well as the quantity of copper coin in circulation in a group of measures that will finally enter into practice only in 1564 with Fernando di Medici.¹⁹⁶ G. A. Thesaurio, in his treatise on money written in 1607, as did al-Maqrīzī two centuries before, will emphasize the need for keeping the amount of petty coins restricted to the needs of minor daily purposes.¹⁹⁷ The idea of small coins being used only for petty business became a common theme among later economists. As Cipolla illustrated, the need to control the amount of low-value money in circulation will be then increasingly recognized by the various modern states.¹⁹⁸

Later cases and experiences with small coins in the Mediterranean will also reveal the role of quantity setting the value of money. In Catalonia, token coins with an intrinsic value lower than their face value were already introduced in the 15th century. First in Gerona, in 1481, then in Perpignan, in 1495, and later in Vich, Tarragona, Cervera and Vilafrance, the

¹⁹³ Spufford, *Monetary Problems and Policies in the Burgundian Netherlands*, p. 220. Quoted in *Ibid.*, 46.

¹⁹⁴ MacKay, *Money, Prices and Politics in Fifteenth-Century Castille*, p. 102.

¹⁹⁵ Previous critiques and denounces from “procuradores” and noblemen had denounced the debasement of the coin, and blame it for the inflation and instability. “The demands for monetary reform and a halt to price inflation, on the other hand, were made both by procuradores of the cortes and the nobility in opposition;” in 1465 “nobility demanded an end to the monetary irresponsability of the king and a return to a sound coinage and stable prices.” In contrast Mackay defends that the aim of the monetary reform introduced finally by the king was “to deal with the urgent problems arising from the chronic nominal inflation and instability of previous decades” (...) “all these measures... aimed at securing a *reduction* of billon coins which were held to be responsible for provoking inflation” *Ibid.*, pp. 89 and 102. It would be necessary to reconsider if the case is really related to the problem of small change or if, in contrast, it refers to the consequences of the debasement of silver coins, which was debased till becoming black money.

¹⁹⁶ Francisco di Medici managed to inforce the 1535 program of monetary rigor based the estabilyty and control of the alloy of silver coins, the limitation of small coins in circulation and the elimination of foreign coins. See Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria*, p. 52-55.

¹⁹⁷ “The quantity [of petty money] should be limited in such a way that it is scarcely sufficient for people to make their petty purchases and to take case of fractional payments.” He adds that it is important to control its minting “because these coins must be struck only for the petty purchases of food and for functions subsidiary to those of (pro suplemento) the bigger coins.” See also S. Serra, Geminiano Montanari, and G. B. Vasco. ———, *Money, Prices, and Civilization in the Mediterranean World, Fifth to Seventeenth Century*, p. 30.

¹⁹⁸ See *Ibid.*, pp. 30-32.

shortage of small change led to the establishment of a token copper coin.¹⁹⁹ Those cases were an innovation in the sense that first, they introduced a fixed amount of coins; second, they were tokens, since their value was not defined by weight or alloy but instead by their relationship to gold and silver coins; and third, their convertibility to those other coins, according to those rates, had to be guaranteed, as in al-Maqrīzī's proposal. Usher conceived it as a consequence of the relative monetary independence that those cities had achieved.²⁰⁰ Then, although they did not yet have the control of small coins, the appearance of the shortage forced them to react and take measures to solve the problem by the introduction of token coins. However, although some policies were pointing towards the principles of what is now perceived as a sound monetary system, the measures were difficult to implement. The quantity of coins in circulation or the agents responsible for their management were difficult to control. The quantities and limits were not always respected and the amount of billon in circulation increased excessively, generating new inflationary periods. As a result, and as in Florence earlier, Barcelona intended to prohibit copper coins from other towns from circulating in the city while other cities tried to control instead the quality of their small coins.²⁰¹

Problems with small change and the stability of the whole monetary system continued, given the continuous revaluation of the gold coin in respect to the silver coin and, particularly, small copper coins. It was frequently seen as resulting from the continuous devaluation the small copper coins underwent, although changes in metal supply played a role.²⁰² The state would increasingly assume control of the issue of those small coins in order to grant stability

¹⁹⁹ In the privilege of June 25th 1481, the town was granted the right to issue 200 pounds of small coins of any weight and fineness, as long as those coins were tradable upon demand for current gold or silver coins; Botet i Sisó, Joaquim, *Les monedes catalanes: estudi y descripció de les monedes carolingies, comtals, senyorials, reys y locals propries de Catalunya*, Barcelona: Puvill, 1976 (Reprod. facs. de la ed. de: Barcelona: Institut d'Estudis Catalans 1908-1911), II, pp. 325-334; III, pp. 11-40; quoted in Usher, *Early History of Deposit Banking in Mediterranean Europe.*, p. 232.

²⁰⁰ According to Usher, Catalonia has experimented a "curious decentralization of the control of the coinage." Barcelona and other cities had been granted privileges on monetary issues already in the 13th century. In exchange of certain fees to the crown, they had the control of the minting, including standards and rates of coins in the case of Barcelona. Ibid., p. 232.

²⁰¹ Ibid., p. 232.

²⁰² "El alza de la cotización de la moneda áurea entre 1530 y 1544 tenía esencialmente la misma causa que el alza de la cotización del florín desde mediados del siglo XIV, es decir, el debilitamiento de la moneda pequeña. Esto reforzaba la arraigada convicción de que cualquier alza era consecuencia e indicio de manipulaciones monetarias inadecuadas. No todos estaban dispuestos a reconocer que el escenario estaba cambiando dramáticamente y que, precisamente a partir de mediados de siglo, la cotización de la moneda de oro era empujada al alza no por un deterioro del valor intrínseco de la moneda de plata y de vellón, sino más bien por la depreciación de la plata respecto del oro, a causa de la llegada masiva de metal blanco a Europa procedente de América. La corriente de pensamiento con la que tropezó Jean Bodin en Francia tenía su equivalente en Toscana;" Cipolla, *El Gobierno De La Moneda: Ensayos En Historia Monetaria.*, p. 68.

to the rest of the monetary structure.²⁰³ In Florence, as happened with the case of the *quattrini* in the late 14th century, when Francisco di Médicis came to power in 1563, the minting of *crazie* and *quattrini* was suspended.²⁰⁴ Again they tried to limit the minting of *quattrini* and adapt it to the mere “needs” of the people.²⁰⁵ In a series of monetary principles also in line with requirements of the “standard formula,” stability of the silver coin, limitation of the quantity of low-value petty coins in circulation as well as elimination of foreign coins are imposed as part of Fernando’s policy of monetary rigor.²⁰⁶ As al-Maqrīzī had proposed, Francisco de Médicis, in order to keep stable the value of gold currency, attempted to keep under control the whole system of relative exchange rates, between gold, silver and copper coins.²⁰⁷ When the end the 17th century presented new experiences with small and debased coins, the *vellón*, the relationship between the massive emission of petty coins and prices was taken as a fact.²⁰⁸ In seventeenth-century Spain, copper coins were taken out of circulation every time their value needed to be readjusted.²⁰⁹ Experiments with token copper coins took place in England, first in 1613, with tradesmen’s tokens (copper farthings), and then in 1672. Still there were some episodes when the amount of those small coins increased and was out of control, until the resolution of 1694, which defined the amount to be coined and “provided for the withdrawal from circulation of any copper presented for redemption.”²¹⁰ By then, both the Crown and the courts were aware of the relationship between the amount of money circulating and prices.

²⁰³ “In Spain the mints were required to issue stated proportions of coins of the various denominations” quoting Usher, “In seventeenth century Venice the issue of petty coins was limited to stated quantities;” Also measures in Rome to state the amount of petty coins to be minted - Montanari, 353, in Graziani, 1913... ———, *Money, Prices, and Civilization in the Mediterranean World, Fifth to Seventeenth Century.*, p. 31.

²⁰⁴ Alejandro de Médicis had attempted already to stop the minting of petty coins in an *ordenanza* of 1535, but it was never put into practice, “till someone with a lot of power” (Cipolla suggest that Francisco di Médicis) finally imposes it. ———, *El Gobierno De La Moneda: Ensayos En Historia Monetaria.*, p. 55.

²⁰⁵ “Y le decimos que de dichas crazie y quattrini no se debería batir más que lo que requiere la mera necesidad de la carencia de los pueblos, ni sin orden expresa por escrito de Vuestra Alteza Serenísima porque más cantidad, dada la mala calidad de dichas monedas, causaría desorden y daño a los ingresos de Vuestra Alteza Serenísima y de otros.” Ibid., p. 120.

²⁰⁶ Ibid., pp. 52-55.

²⁰⁷ “no hay nada que haga subir más el precio del oro que el envilecimiento de la moneda además de que en la medida que ella se envilece así disminuyen los ingresos de Vuestra Alteza y por consiguiente los ingresos de cada particular” (text of the report of 1571); Ibid., pp. 68-69.

²⁰⁸ See declarations of the Castilian Courts at the end of Felipe II’s reign, which explained the strong increase of prices because of the debasement and massive emissions of petty change, vellón. *Actas* quoted by Hamilton. Earl J. Hamilton, *El Tesoro Americano Y La Revolución De Los Precios En España, 1501-1650* (Barcelona: Editorial Ariel, 1975)., p. 303.

²⁰⁹ “Para reajustar las monedas de cobre o de vellón, se las retira continuamente de la circulación y se ordena que sean llevadas a las Casas de la Moneda.” Fernand Braudel, *El Mediterráneo Y El Mundo Mediterráneo En La Época De Felipe II*, trans. Maria Monteforte Toledo, Wenceslao Roces, and Vicente Simón, II vols., vol. I (Fondo de Cultura Económica, 2001)., p. 695.

²¹⁰ C. Oman (1931), quoted in Usher, *Early History of Deposit Banking in Mediterranean Europe.*, pp. 232-33.

CHAPTER V. THE EMERGENCE OF THE QUANTITY THEORY OF MONEY IN CONTEXT OF BIG CHANGE INFLATION VERSUS EARLIER PROPOSALS FOR CONTROLLING THE QUANTITY OF MONEY IN CIRCULATION

In the previous chapter, I analysed how certain economic discourses on money and prices gave rise to early perceptions of the role played by the quantity of money in defining its value in units of account and in respect to other commodities. I focused on a particular development that took place when scholars and economic agents pointed to the quantity of money as a new dimension to consider in the relative value of currencies and as a new instrument for the management of money. This development appeared in the contexts of small change inflation in the late 14th and early 15th-centuries, when large flows of petty coins invaded the markets in certain cities. These invasions revealed the relationship between the quantity of metal in the economy, the value of money and, in some cases, prices. A century later, the arrival of large amounts of silver and gold from America and the consequent so-called revolution of prices in Europe would show again the relationship between the amount of specie in circulation and prices. But this time the quantity element would refer to the major coins in circulation, of gold and silver, which would bring about broader consequences in the general understanding of money. In that context of “big change inflation,” some scholars observed and put forward what are considered the earliest versions of such an economic relationship: the quantity theory of money. We will see the works of these scholars and compare them to previous proposals for managing the amount of money in the economy. The main objective of the analysis and comparison is to understand the conceptual changes and subtle nuances that occurred in the development of the quantity analysis of monetary inflation.

V.1. The emergence of the quantity theory of money: a historiographical review

The “prolonged” silver famine of the late Middle Ages originated in the cycle of the three consecutive “Great Bullion Famines,” from the 13th to the 15th centuries, ending in the last third of the 15th century.¹ Those restrictions in metal supply were surmounted by the

¹ Broadly speaking, the “Great Bullion Famine” of 1208/14-1250; the second “Great Bullion Famine” of 1392-1412/25; and the third “Great Bullion Famine” of 1455-1465; See Blanchard, *Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy*, (vol. III), pp. 971-1089.

recuperation of central European mines, made profitable again with new technical advances.² Some decades later, European production would be surpassed by the silver and gold imports coming from America in the 16th century.³ The new metal coming from Central and South American mines flooded European markets with bullion in different phases. The first third of the century was characterized by relatively more significant arrivals of gold, the “years of gold” (1501-1530), while silver became predominant between 1525 and 1550, whose imports would achieve its highest levels in the decade from 1560 to 1570.⁴ From Seville, the city receiving silver and gold imports from the Indies, these new supplies of metals entered Spanish markets and, concurring with a period of population and economic growth initiated in the previous century, contributed to the price revolution that extended from Andalusia to Castile and the rest of Spain, to all of Europe, reaching its zenith in 1600.⁵ Although prices rose constantly throughout the century, inflation rates were not homogeneous and affected the different regions of Europe and the Mediterranean in diverse ways.⁶ According to the percentage increases of prices in Spain calculated by Nadal, in the first 30 years (the “years of gold”) there were stronger but more irregular price increases, with one fall in 1511-1515, and another fall in the rate of increase after 1565.⁷ In Castile, according to Hamilton’s data, the

² At the end of the 15th century, new silver ores were found in the Alps and in the Erzgebirge (Tirol and Saxony); technical innovations made profitable again the old mines of Kutná Hora in Bohemia, Freiberg in Saxony and Goslar in the Harz. At the beginning of the 16th centuries new silver mines were opened as well in Saxony and Bohemia. See Spufford, *Money and Its Use in Medieval Europe*., pp. 363 and 373. Munro also raises attention to the considerable amount of ‘Sudanes’ gold (from Senegal, Niger and Volta River basins) that the Portuguese brought into Europe from 1460-70. Munro, “The Monetary Origins of the ‘Price Revolution’: South German Silver Mining, Merchant Banking, and Venetian Commerce, 1470-1540.”, p. 6. European silver production reached its peak in 1530s and then started to decrease. Spufford, *Money and Its Use in Medieval Europe*., p. 373. For the impact of European silver production on European economy at the end of the 15th century and the beginning of the 16th century, see also pp. 374-377.

³ The biggest quantity of American bullion arrived to Europe after 1560 and surpassed the production of central Europe by 1570s. Miskimin, *The Economy of Later Renaissance Europe, 1460-1600.*, pp. 38-39.

⁴ In relation to the gold-silver eras, data from TePaske shows that gold production did not decrease at the end of the century. (TePaske, 1998, p. 22); however, it was relatively smaller. The total amount of gold and silver produced in America, between 1492 and 1600, represented the 39 and 74% of world production according to Barret (Barret, 1990, p. 225); both quoted in Bartolomé Yun Casalilla, *Marte Contra Minerva: El Precio Del Imperio Español C. 1450-1600* (Barcelona: Crítica, 2004)., pp. 129 & 136.

⁵ After 1600 prices tended to fall. See Vilar, 1976, p. 81. About the term “price revolution,” contesting critiques to it, Braudel argued that whether or not the causes of such an increase in prices all over Europe, and the Mediterranean, may be discussed, its effects do not, and, in that sense: “*situaciones dramáticas requieren expresiones dramáticas*” Braudel, *El Mediterráneo Y El Mundo Mediterráneo En La Época De Felipe II.*, p. 686.

⁶ See tables compile by Munro about prices in Flanders, Brabant, England and Spain. Munro, “The Monetary Origins of the ‘Price Revolution’: South German Silver Mining, Merchant Banking, and Venetian Commerce, 1470-1540.”, pp. 2-3. Or comparison of the behavior of prices in Alsacia, Amberes, Augsburgo, Castilla la Nueva, South England, Valencia and Viena from Hamilton’s and Martín Aceña’s data in Yun Casalilla, *Marte Contra Minerva: El Precio Del Imperio Español C. 1450-1600.*, p. 135. For the comparison of the growth of wheat and basic products in the Mediterranean see graphs by Braudel and Spooner in pp. 684-685 and 688.

⁷ From Jordi Nadal’s data, Vilar states that the impact on prices generated by the relatively bigger and unexpected imports of gold at the beginning of the century was stronger than the effect of the posterior enormous

most rapid rise in prices took place in the years 1521-25 (recording a total inflation of 17% in respect to the previous five years), and the period 1561-65 (prices increasing by 15% in the whole quinquennial period).⁸ Revised data by Martín Aceña shows higher rates of inflation for the period 1526-1575, and relatively higher in particular for 1526-1550.⁹ In Europe the fastest rise did not take place before 1550, although in England and Brabant the total inflation of the 1521-25 period also reached important rates of 20%.¹⁰ The first increase in prices in Spain affected initially agricultural and basic foodstuffs and later spread to manufactured products as well.¹¹ During that first third of the century those increases were strongly correlated with the increase of the demand from America.¹² The net effect of the American treasure seems to have had a particular effect only from 1535 on, although increases were not so sharp as at the beginning.¹³

These geographical and temporal differences in the behavior of prices reflect the complex group of factors that generated and characterized the so-called price revolution. The

influx of silver. Pierre Vilar, *A History of Gold and Money, 1450 - 1920*, trans. Judith White (London; New York: Verso, 1976), pp. 81-82.

⁸ From Munro's table of composite price indices in quinquennial means based on Hamilton's data. Munro, "The Monetary Origins of the 'Price Revolution': South German Silver Mining, Merchant Banking, and Venetian Commerce, 1470-1540.", p. 2. The highest rates of inflation in Spain coincided in time with the maximum output of central European mines and not with the moment of maximum volume of bullion imports from America. As Miskimin explains, the proportion in which this increase in metal affected prices depended as well on the relative increase of money supply. That is, the increase of money supply in relation to the size of metal stock in the economy was the determinant of a sharper or no impact on prices; hence, the initial higher inflation of the 1520s, not correlated with the highest moment of American metal imports, in addition of being a consequence of the American demand can be seen as a result of the higher increase of the metal supply in relation to the stock of bullion existing in Europe at those moments. Miskimin, *The Economy of Later Renaissance Europe, 1460-1600.*, pp. 36 and 39. Cassel and Imbert, among others, have also given evidence of the correlation between long terms variations in general price levels and the "relative quantity of gold." See Vilar, *A History of Gold and Money, 1450 - 1920.*, pp. 332-33.

⁹ 1526-1550 reached a 2,27% of annual average inflation and a 2,1% for 1551-1575, while in Hamilton those same rates were 1,36 and 1,91% respectively. Yun Casalilla, *Marte Contra Minerva: El Precio Del Imperio Español C. 1450-1600.*, p. 135.

¹⁰ For the later see Munro, "The Monetary Origins of the 'Price Revolution': South German Silver Mining, Merchant Banking, and Venetian Commerce, 1470-1540.", p. 15.

¹¹ The most affected products initially were oil, wine and wheat. Then increases of prices extended to the industries of Granada, Toledo and Ocaña that produced silk, leather and arms, and soap and gloves, respectively, also for exportation to the Indies. See Vilar, *A History of Gold and Money, 1450 - 1920.*, pp. 86-87 (Vilar set that period of initial higher inflation between 1521-30).

¹² According to the studies of Carande, during 1511-1531, the increase in prices in Andalusia was basically related to the demand for exports to the Indies. Quoted in *Ibid.*, p. 86. Indeed, according to Munro's data collection only from 1531-40 the silver imports recorded in Seville are significant enough, no relating then with the mentioned higher inflation of the previous decade. Munro, "The Monetary Origins of the 'Price Revolution': South German Silver Mining, Merchant Banking, and Venetian Commerce, 1470-1540.", p. 10.

¹³ Hamilton, *El Tesoro Americano Y La Revolución De Los Precios En España, 1501-1650.*, pp. 316-17. Hamilton accepts that for the first part of the century, American demand as well as the expansion of credit, and the European silver production had an important role in the increase of prices. Yun points out to the role played by thesaurization, particularly after 1560. Yun Casalilla, *Marte Contra Minerva: El Precio Del Imperio Español C. 1450-1600.*, p. 131.

inflows of bullion enhanced the circulation of money in a context of population, economic and urban growth, contributing to the general increase of prices. Increases in division of labor, expansion of private and public credit, financial instruments, higher activity of money markets, etc., also played a role in stimulating demand and thus prices.¹⁴ The actual compliance or not of the quantity theory of money, which would explain inflation because of increases in the monetary base, received special attention in the economic history literature after 1929. In that year Hamilton raised his wage-lag theory, in which he stated that the birth of European capitalism took place thanks to profit inflation and accumulation of capital originating when wages remained behind prices of goods when inflation escalated.¹⁵ In parallel to the discussion about the “origins” of capitalism, his work opened a whole debate about the actual impact of the arrival of metals on prices and on European economies in general, generating numerous discussions and studies. In later research, Hamilton argued that the quantity theory could explain the so-called revolution of prices in sixteenth-century Europe. He measured silver importations and prices in Spain and examined their correlation.¹⁶ Other works opposed this view, showing instead the impact of other “real” factors on the revolution of prices.¹⁷ Whether or not other factors concurred as well, and

¹⁴ See Munro, "The Monetary Origins of the 'Price Revolution': South German Silver Mining, Merchant Banking, and Venetian Commerce, 1470-1540." and Yun Casalilla, *Marte Contra Minerva: El Precio Del Imperio Español C. 1450-1600.*, pp. 129-136.

¹⁵ See Earl J. Hamilton, "American Treasure and the Rise of Capitalism," *Economica* Nov. (1929).

¹⁶ ———, *American Treasure and the Price Revolution in Spain* (Cambridge: Cambridge University Press, 1934).; Earl J. Hamilton, *Money, Prices and Wages in Valencia, Aragon and Navarre 1351-1500* (Cambridge, Mass.: 1936).; and further assertions of his thesis in Earl J. Hamilton, "Profit Inflation and the Industrial Revolution, 1751-1800," *Quarterly Journal of Economics* Feb., no. 56 (1942)., and Earl J. Hamilton, "Prices as a Factor in Business Growth," *Journal of Economic History* Fall, no. 12 (1952).. Confirming, although qualifying with accumulative price series, Hamilton's argument about the direct impact of bullion, see work by François Simiand, commented in Vilar, *A History of Gold and Money, 1450 - 1920.*, pp. 77-78; as well as the work by Alexandre Chabert, "Encore la revolution des prix au XVI^e siècle" (*Annales E. S. C.*, 1957), and *Structure Économique et théorie monétaire*, 1956; both quoted in Braudel, *El Mediterráneo Y El Mundo Mediterráneo En La Época De Felipe II.*, p. 690. According to Vilar, Hamilton's work of 1929 had some positive as well as negative effects on posterior literature. From the positive side, he contributed to the debate on the origins of capitalism, reassessing Sombart's and Weberian thesis, with objective and real facts (the lag of wages behind prices). Hamilton's later work clarified and measured quantitatively the level of bullion flood arriving to Spain as well as the behavior of prices and wages during those years. In this way, Hamilton's contribution to the field of economic history cannot be underestimated, apart of the critiques his work received later. Indeed Hamilton is still the main reference concerning data about prices and mining outputs in sixteenth century Spain. See Munro, "The Monetary Origins of the 'Price Revolution': South German Silver Mining, Merchant Banking, and Venetian Commerce, 1470-1540.", pp. 2-5. Some of the critiques against his work referred basically to the data Hamilton used and how he treated it. See in this respect: J. Nadal Oller, "La Revolución De Los Precios Españoles En El Xvi. Estado Actual De La Cuestión," *Hispania* 19 (1959).; and the works by François Simiand and Ramón Carande synthesized by Vilar. Pierre Vilar, "Problems of the Formation of Capitalism," *Past and Present* 10 (1956)., pp. 16-17.

¹⁷ Y. S. Brenner highlighted in contrast the role played by population and economic growth, and later Goldstone (1991) put the emphasis in the impact of labor specialization, which meant a higher level of exchanges of goods and services, and, hence, of the velocity of circulation of money. Both mentioned in: Yun Casalilla, *Marte*

disregarding the fact that the quantity theory needs qualifications (about how extra money supply is introduced into the system, absorbed by and transmitted to the different economic sectors, how it impacts consumption patterns, industrial organization and trade, or how other factors contribute to changes in the velocity of circulation, etc.), the fact that the increase in metal supply was followed by price inflation is not in question.¹⁸ In any case, the present study will not cover these issues because its purpose is not to examine the actual explanatory power of the quantity theory of money but to analyse how scholars and economic agents of the time perceived the relationship between money and prices; in Braudel's words: "what matters is the astonishment of contemporaries."¹⁹

It is in relation to the perception of contemporary scholars and agents that Hamilton's work also opened new grounds for discussion and strong divergences – divergences that could have been narrower if certain statements had been framed in a different way. Hamilton had explored the declarations of the Castilian courts, the *Cortes*, and cities in Spain, as well as some treatises by Spanish theologians and scholars of the period, in order to explore how contemporary actors perceived the price revolution and the causes behind it.²⁰ The declarations in the Castilian court, which Hamilton collected, basically blamed the inflation on massive exportation of local products to America the speculation of foreign dealers.²¹ Indeed later studies have shown that American demand, as well as speculation and hoarding, did play a role in boosting prices in Spain, especially at the beginning of the period, as mentioned.²² In fact, analyses relating the arrival of bullion and prices appeared in the writings of some scholars only from the middle of the century on, the period that, as we saw, experienced some of the highest inflation rates, and when the impact of previous metals on prices seems to have

Contra Minerva: El Precio Del Imperio Español C. 1450-1600., p. 132. For literature defending the non-monetary or "real" causes (mainly demographic but also agricultural and a combination of demographic and monetary factors) of the 16th century revolution of prices, see compilation in note 4 of Munro, "The Monetary Origins of the 'Price Revolution': South German Silver Mining, Merchant Banking, and Venetian Commerce, 1470-1540.", p. 1.

¹⁸ A synthesis of arguments in favor and against may be found in: Braudel, *El Mediterráneo Y El Mundo Mediterráneo En La Época De Felipe II.*, pp. 690-693. To sum up, let's keep, in any case, the final statement in Munro's evaluation of the issue: "the origins and mechanics of European inflation are much too complex to rest upon one single factor, monetary or 'real', though clearly, *au fond*, they had strong monetary components, especially in precious metals." Munro, "The Monetary Origins of the 'Price Revolution': South German Silver Mining, Merchant Banking, and Venetian Commerce, 1470-1540.", p. 27.

¹⁹ Braudel, *El Mediterráneo Y El Mundo Mediterráneo En La Época De Felipe II.*, p. 686.

²⁰ See, "why prices increased" in Hamilton, *El Tesoro Americano Y La Revolución De Los Precios En España, 1501-1650.*, pp. 299-322.

²¹ See declarations collected in *Ibid.*, pp. 299-302.

²² See note 12. Later Hamilton recognizes also that, at the beginning of the 16th century, colonial demand, expansion of credit and the growing German production of silver had an effect on prices. *Ibid.*, p. 317. About the actual increases in prices generated by the speculation of Genovese merchants see the work by F. Ruiz Martín mentioned by Braudel. Braudel, *El Mediterráneo Y El Mundo Mediterráneo En La Época De Felipe II.*, p. 687.

played a clearly important role. In respect to the writings by “theologians and moralists,” Hamilton did find several references that indeed showed at least a certain awareness among those scholars of the relationship between bullion and prices.²³ Hamilton insisted, however, that they pointed only to the quantity of metal in circulation in passing, without explaining it much, or that they considered the impact of American bullion only one among other more important factors in price increases.²⁴ As a result, Hamilton concluded that the immense majority of Spaniards of the era did not even mention American mines in their explanations of price increases.²⁵ This statement was fully accepted by some economic historians working on the period without taking into consideration the qualifications Hamilton added in his extensive work.²⁶

²³ Among others Hamilton collects commentaries by Luis Saravia de la Calle in 1544, Tomas de Mercado in 1569, Francisco García in 1583, and Francisco López de Gómara in 1558 (although his texts were not published till 1912), and later by Martín González de Cellorigo, to whom Hamilton attributes the first printed version of the theory in Spanish and whose “non mercantilism” praises, by Sancho de Moncada, who, according to Hamilton, was, like González de Cellorigo, quoting Bodin, and Pedro Fernández Navarrete and Diego de Saavedra Fajardo, who, writing in 1650, did not quote Bodin. Hamilton, *El Tesoro Americano Y La Revolución De Los Precios En España, 1501-1650.*, pp. 306-310.

²⁴ Hamilton explains, for example, that Saravia de la Calle finally blames usury for most of the increase in prices since it forces merchants to compensate losses. About Tomás de Mercado, Hamilton recognizes that he portrayed a theory of the value of money, which included quantity as a factor, and that he saw the impact of bullion on prices in the Indies, but not in Spain, pointing there to other factors instead. For López de Gómara, Hamilton says that he ends the issue in a sole sentence, without more explanation. His justifications are in certain way contradictory since, while Hamilton says that Spanish authors did not dedicated much writing to the impact of bullion on price because their “mercantilism” did not allow to see its relevance, he adds that in cases as Mercado’s the scholars did not dedicate much to it because it was an obvious factor. Ibid., pp. 306-310.

²⁵ “The immense majority of the Spaniards of the epoch did not even mention, in their explanations about the increase in prices, the American mines,” (the inverse translation is mine) Ibid., p. 299. About official and administrator in the cities and the crown, Hamilton adds that: “*Lo que más llama la atención de los intentos de las cortes, los ministros, la corona y los municipios para explicar el elevado coste de la vida que se esforzaban en controlar es el hecho de que ni siquiera mencionaran las ricas minas de América. El examen a fondo de los documentos de la época no nos ha permitido hallar ninguna referencia, ni siquiera meras alusiones, a la influencia de los caudales americanos e el desencadenamiento de la revolución de los precios.*” Then in a note he reconsiders the possibility of this study not being of such a depth. Hamilton, *El Tesoro Americano Y La Revolución De Los Precios En España, 1501-1650.*, p. 305. About the scholars Hamilton says that they focused in a broad number of factors other than the arrival of metals, giving scarce importance to this factor, although they did not deny it, as authorities did. Hamilton, *El Tesoro Americano Y La Revolución De Los Precios En España, 1501-1650.*, p. 308.

²⁶ Probably as a result of how the issue was posed in some reviews: “One of the most interesting sections of the book comprises a study of the contemporary views as to why prices rose. (...) The sixteenth century Spaniard was almost entirely ignorant of the relations of the treasure influx to price increases (...) The earliest indication of an appreciation of the relationship between treasure imports and Spanish price changes was in the manuscript pages of Gómara’s *annals of the Emperor Charles V*, written in 1558 and first published by Professor Merriman in 1911. Bodin’s treatise written some ten years later made a more elaborate reference to this subject, but not until the opening of the seventeenth century was there any considerable discussion in print among Spanish economists of the tie between treasure importations and price changes.” Julius Klein, “American Treasure and the Price Revolution in Spain, 1501-1650 by Earl J. Hamilton,” *American Economic Review* 40, no. 2 (1935): 320-322, pp. 321-322. The mere repetition of Hamilton’s phrase among economic historians raises some doubts. See among others: “The sixteenth-century inflation that played a major part in the decline of German prosperity was common to all of Europe, but its causes were not clearly comprehended by the men of the time.” After this statement, Miskimin would introduce then the debate between Malestroit and Bodin. Miskimin, *The Economy of*

Hamilton then confirmed that Bodin was the first to demonstrate in 1568 that American mines were the cause of the revolution of prices.²⁷ According to Hamilton, those scholars who related prices and bullion in Spain after 1568 did so as a result of Bodin's influence, whether they quoted him or not.²⁸ Hamilton wrote his work in 1935; three years earlier Henri Hauser had edited Bodin's *Response* to Malestroit, where Bodin describes the relationship, and then in 1934, a collective publication of the texts on money by Copernicus, Malestroit, and Bodin.²⁹ Moreover, Bodin thought himself to be the first person to notice it, as he declares in his *Response*.³⁰ Indeed, until recently, he had been considered the first by most of the literature, which took Bodin's text as a benchmark in monetary thought, linked to the monetary works of John Locke and David Hume.

Numerous scholars reacted to Hamilton's position in this respect and contested his statements immediately and strongly. Only a year after the publication of Hamilton's book, Dempsey had reviewed the historical development of the quantity theory, questioning and strongly criticizing Hamilton's position that Spanish authors paid no attention to the influence of American treasure on prices prior to 1650.³¹ Dempsey brings to light the works of Luis de Molina and others, as touching upon the quantity relation between metals and prices, even if

Later Renaissance Europe, 1460-1600., p. 36. Following this line of interpretation see also: Douglas Fisher, "The Price Revolution: A Monetary Interpretation," *The Journal of Economic History* 49, no. 4 (1989), pp. 885-886.

²⁷ Hamilton, *El Tesoro Americano Y La Revolución De Los Precios En España, 1501-1650.*, p. 308. In the introduction Hamilton is a bit more conscious and comments how it is not in his hand to give the last word in this respect (p. 17). Monroe, had given earlier references to Noël du Fail (1548) or Gómara (*Anales del Emperador Carlos V*, 1558). Hamilton says not to find traces of the theory in the first one, and disregards the second one for being published after Bodin's. Monroe, *Monetary Thought before Adam Smith*. (1923), quoted in Hamilton, *El Tesoro Americano Y La Revolución De Los Precios En España, 1501-1650.*, p. 309.

²⁸ Like Martín González de Cellorigo (1600), Sancho de Moncada (1619), Pedro Fernández Navarrete and Diego de Saavedra Fajardo, both writing before 1650. Hamilton, *El Tesoro Americano Y La Revolución De Los Precios En España, 1501-1650.*, pp. 309-10.

²⁹ Copernicus et al., *Écrits Notables Sur La Monnaie, Xvie Siècle, De Copernic a Davanzati; Reproduits, Traduits, D'après Les Éditions Originales Et Les Manuscrits, Avec Une Introduction, Des Notices Et Des Notes*. In fact, when Hamilton refers to Monroe is based on Hauser's introduction to this edition. See note 27 above.

³⁰ Bodin writes: "*Je trouve que la charté que nous voyons vient pour trois causes. La principale et presque seule (que personne jusques icy n'a touchée) est l'abondance d'or et d'argent*" Jean Bodin, *La Vie Chère Au XVI Siècle: La Response De Jean Bodin a M. De Malestroit-1568*, ed. Henri Hauser (Paris: Librairie Armand Colin, 1932), p. 9. Underline mine.

³¹ Dempsey does not analyze the works by Mercado and Azpilcueta, although proposes that a deep analysis and comparison of the monetary thought of sixteen and seventeenth century scholars should be made before stating who first formulated or not any theory. Bernard W. Dempsey, "The Historical Emergence of Quantity Theory," *Quarterly Journal of Economics* 50, no. 1 (1935), p. 183; According to Larraz (1943) earlier vision as those of Endemann (1874) and Sayous (1928) were already challenging Hamilton's perception. J. Larraz López, *La Época Del Mercantilismo En Castilla (1500-1700)* (Madrid: Asociación Española de Historia Moderna, 2000), (1943), pp. 71-73.

“in passing”, in works prior to 1600.³² Hamilton replied to Dempsey in that same volume of the journal, saying that the authors Dempsey tells him to consider in order to reassess his view were not included as “economists” in the sources (bibliographies and encyclopedias) he used.³³

In 1941, two works, by Höffner and Ullastres, traced the first exposition of the theory back to the writings of another author, Martín de Azpilcueta, who prior to Molina or Mercado, and even Bodin, described a “crude” version of the quantity theory of money. Azpilcueta explicitly explained the low value of money and the appreciation of commodities as a consequence of the American metal in his *Resolutorio de Cambios*, published in Salamanca in 1556, which we will see in the next section.³⁴ Supporting this, in 1943 Larraz defended the “quantitativism” of the School of Salamanca, which he defined as an intellectually coherent group of scholars who shared a set of common political and also economic ideas.³⁵ Indeed,

³² Luis de Molina, *De Jure et Justitia*, Cuenca, 1593; Dempsey, "The Historical Emergence of Quantity Theory." pp. 178-79.

³³ Hamilton recognizes that he did not pay attention to Spanish literature on law and justice or to religious treatises with titles such as “Introduction to the Symbol of Faith, Prayer and Meditation, and A Guide for Sinners.” He accepts that he had not read “the sections of this huge work which deal with contract” were “we find Molina’s ideas on money” that Dempsey pointed out to him. However Hamilton maintains his position, avoids mentioning much of Azpilcueta’s work, and argues that, in any case, if Molina formulated the quantity theory was probably out of Bodin’s influence in any case. Fairly enough, in his defense Hamilton also adds that the purpose of his work was not to give a history of the emergence of the theory. Earl J. Hamilton, "The Historical Emergence of Quantity Theory: Comments," *The Quarterly Journal of Economics* 50, no. 1 (1935). pp. 188-89.

³⁴ Braudel, who mentions Azpilcueta’s as the earliest exposition of the Quantity theory, is based on Joseph Höffner’s work which although published in 1941 it was written at the end of the 19th century, so could be say to be the one who “discover” Azpilcueta’s “quantitativism”: Joseph Höffner, *Wirtschaftsethik und Monopole*, 1941, Berlín 1892, p. 110. However, he wrongly states that Azpilcueta’s work was not published till 1590, maybe because Höffner had only knowledge of some of the later editions of Azpilcueta’s *Handbook for confessors*. See Braudel, *El Mediterráneo Y El Mundo Mediterráneo En La Época De Felipe II.*, p. 689. Unfortunately I have not been able to check it. Grice-Hutchinson does not mention Höffner and refers to Larraz for the “discovery” of the School of Salamanca as such, and to Ullastres in relation to the monetary thought of Azpilcueta. Marjorie Grice Hutchinson, *La Escuela De Salamanca: Una Interpretación De La Teoría Monetaria Española 1544-1606*, trans. Jose Luis Ramos Gorostiza, Estudio introductorio Luis Perdices de Blas y John Reeder ed. (Salamanca: Caja España, 2005)., p. 118. Indeed Ullastres, since he dated correctly the publication of Azpilcueta’s text, deserve the actual credit for having pointed to Azpilcueta as the “first” to put forward the economic relationship. See Alberto Ullastres Calvo, "Martín De Azpilcueta Y Su Comentario Resolutorio De Cambios. Las Ideas Económicas De Un Moralista Español Del Siglo XVI," *Anales de Economía* 3-4 (1941): 375-409; and 5 (1942): 51-95.

³⁵ Larraz explains the development among Latin scholastics of the idea of money as commodity whose value may change, and mentions earlier allusions, although they did not put together the relationship, in Domingo de Soto (*Libro VII de De justitia et jure*, 1553), Juan de Medina (*Codees de restitutione*, Alcalá, 1546), and, slightly, in a sentence of Francisco de Vitoria in his commentary to Aquina’s *Secunda Secundae*. Larraz López, *La Época Del Mercantilismo En Castilla (1500-1700)*, p. 77. pp. 71-84. The label School of Salamanca to refer to this group of late scholastics was developed later and has received several critiques and revisions, see for example works by Barrientos García and revision of Grice-Hutchinson (1989). For a detailed examination of the “discovery of the School of Salamanca”, see the epigraph in Rodrigo Muñoz de Juana, "Moral Y Economía En La Obra De Martin De Azpilcueta," (Pamplona: EUNSA, 1998)., p. 28. See as well: Pedro Schwartz Girón, "El

Larraz stated that elements of the quantity relation were already latent long before the scholastics from Salamanca wrote.³⁶ After that, the 1950s witnessed a boom in studies about scholastic economic thought that included Spanish scholasticism and confirmed Larraz's point. Specific studies on the economic ideas developed by the scholars of the School of Salamanca led to a reassessment of their works. The crucial contribution, in this respect, was Grice-Hutchinson's investigation about monetary thought in the School of Salamanca and on the Iberian Peninsula.³⁷ In 1952, after revisiting Ullastres and Larraz's works, Grice-Hutchinson introduced the School of Salamanca to the Anglo-Saxon literature, and confirmed it as the intellectual centre where the earliest versions of the quantity theory were formulated.³⁸ She finally granted the earliest authorship of the theory to Azpilcueta. Further research on the economic visions of those scholars, including Francisco de Vitoria, Tomas de Mercado, Luis de Molina, Juan de Medina, Juan de Mariana, and others, has confirmed as well that, by the time Azpilcueta was writing, those monetary ideas were already "in the air," part of a kind of common conceptual framework among intellectuals of the School of Salamanca and grounded in medieval works.³⁹

Vilar blamed French economic studies for having traditionally assumed that the Spanish had "experienced the price revolution without understanding it."⁴⁰ However, it should be stated that French scholars like Sayous, to whose studies Larraz also pointed, had

Legado De La Escuela De Economía De Salamanca: Una Estimación Actual," in *Historia De España. Hechos E Ideas* (2005 (in press?)).

³⁶ Larraz López, *La Época Del Mercantilismo En Castilla (1500-1700)*.(1943), pp. 71-73.

³⁷ Von Hayek, who directed her PhD thesis, proposed Grice-Hutchinson to examine the economic ideas of the scholars of Salamanca. Grice-Hutchinson would later become an authority and pioneer in the area. Grice-Hutchinson, *The School of Salamanca: Readings in Spanish Monetary Theory 1544-1605*.; and Grice-Hutchinson, *Early Economic Thought in Spain 1177-1740*.; L. S. Moss and C. Ryan K. find strange that Hamilton did not take in consideration the Spanish scholastic authors. See Moss, L. S. and C. Ryan, "Introducción" to Grice-Hutchinson, M., *Ensayos sobre el Pensamiento Económico en España*, Madrid: Alianza, 1995, pp. 24-26. Quoted in Luis Perdices de Blas and John Reeder, "Estudio Introductorio: Marjorie Grice Hutchinson Y La Escuela De Salamanca," in *La Escuela De Salamanca: Una Interpretación De La Teoría Monetaria Española 1544-1606* (Salamanca: Caja España, 2005).: 13-67, p. 17. We have to take into consideration that Hamilton made his research before Larraz or Ullastres brought into light the texts of some of those authors, and before Grice-Hutchinson started her research, who indeed entered in contact with him in Spain in the mid forties (Perdices de Blas-Reeder, 2005, p. 27).

³⁸ She was in contact with both authors in Spain. Grice-Hutchinson, *The School of Salamanca: Readings in Spanish Monetary Theory 1544-1605*., p. 42. Grice-Hutchinson "introduced the label 'School of Salamanca' in the Anglo-American world" Baeck, *The Mediterranean Tradition in Economic Thought*., p. 210.

³⁹ In Michèle & Bernard Gazier words: "elle était en fait 'dans l'air', comme on dit." Michèle Gazier and Bernard Gazier, *Or Et Monnaie Chez Martín De Azpilcueta* (Paris: Economica, 1978)., p. 114. Grice-Hutchinson had already presented a similar conclusion, following Larraz: "The foundations of the Quantity theory of money had been laid by medieval writers. But Azpilcueta brought the theory to life, observing at first hand how prices and wages had risen in Spain as result of the imports of American gold and silver." Grice-Hutchinson, *Early Economic Thought in Spain 1177-1740*., p. 106.

⁴⁰ Vilar, *A History of Gold and Money, 1450 - 1920*., p. 155.

already highlighted in 1928 the works of contemporary Spanish scholars in this respect.⁴¹ Reacting against what had become the dominant vision by then, Vilar took just the opposite position to Hamilton's, and held that the Spanish, confronted with what was happening as it occurred, not only studied the phenomena of bullion and prices but also "understood it better than anyone."⁴² Evaluations of 16th-century Spanish scholarship seem to go from one extreme to the other.⁴³ Be that as it may, the fact that part of the literature denied the value of certain contemporary explanations about the revolution of prices in order to highlight Bodin's contribution, did not help to perceive a more complex situation that, probably, was closer to the scenario described by Larraz and Gazier, in which the effect of bullion on prices was considered as an evident factor by contemporaries. The emergence of the quantity theory of money thus came to be seen as necessarily related to the debate between Malestroit and Bodin – an intellectual debate that placed the sources of inflation in the debasement of money, on one hand, or on the quantity of metal in circulation, on the other. Some of Malestroit's arguments were completely underestimated as were other factors that played a role in the so-called price revolution. The study of those contemporary authors was used to argue for the applicability of the quantity theory in its most simplistic form, reflecting some of the debates

⁴¹ Sayous did not only defend that: "*Les observations les plus nombreuses et intéressantes sur les changes se trouvent dans des publications espagnoles,*" mentioning then Cristobal de Villalon, Saravia de la Calle, Luis de Alcala, Tomás de Mercado y Francisco García; or "*Les Espagnols ont publié sur ceux-ci des livres très suggestifs, sinon les plus suggestifs du XVI^e siècle. Le motif en est, croyons-nous, que la foire de Medina del Campo et les nouvelles relations avec l'Amérique ont placé les Espagnols en face de situations extrêmement importantes et remarquables, dont ils ont tiré d'utiles enseignements;*" but detailed also that Tomás de Mercado and then Francisco García had considered the abundance of silver as one of the factors explaining changes in the price of coins, according to the law of supply (*abondance* or *rareté*) and demand (*besoin*). More than this, Sayous stated as well that Mercado had "*constaté que la puissance d'achat de la monnaie était plus grande dans les Flandres et à Rome qu'en Espagne*" and moreover had "*aperçu une des causes principales de la cherté en Amérique, l'« abondance des métaux » et la « faible estime » où on les y tenait.*" Curiously enough, in contrast to Hamilton's perspective, Sayous states that "Mercado a exagéré les influences d'ordre monétaire." André- E. Sayous, "Observations D'écrivains Du XVI^eme Siècle Sur Les Changes Et Notamment Sur L'influence De La Disparité Du Pouvoir D'achat Des Monnaies, *Revue Économique Internationale* 1928," in *Structure Et Évolution Du Capitalisme Européen Xvie-Xvii^e Siècles*, ed. Mark Steele (London: Vairum Reprints, 1989), pp. 296, 307, 311 314-15 and 317.

⁴² Vilar states that "there are more 'memoranda' about money in 17th century Spanish archives than there are in the hands of the International Monetary Fund today." Vilar, *A History of Gold and Money, 1450 - 1920.*, pp. 157 and 9. Vilar also makes an interesting chronological examination of the critiques and analysis of the price revolution depending on the economic situation in pages 159-163. "For the metals which enriched Spain parasitically (and therefore in the end ruined her) flowed out into those countries where its purchasing-power was greatest. The market was thus unified, money redistributed. But the relations between the cost of production of the metals and that of other commodities were expressed in terms of exchange-rates, as the Spanish theologians who meditated on interest and usury understood, if they did not explain" Vilar, "Problems of the Formation of Capitalism.", p. 32.

⁴³ From the position of defending that they did not even consider American bullion among the causes that generated the so-called revolution of prices, we find positions like Munro's, who complains that for centuries the causes of the price revolution has been reduced to the influx of Spanish-American silver, a view originated with Azpilcueta. Munro quotes Grice-Hutchinson. Munro, "The Monetary Origins of the 'Price Revolution': South German Silver Mining, Merchant Banking, and Venetian Commerce, 1470-1540.", p. 1.

about monetarism and the neutrality of money dominating the economic discipline in the mid-20th century.

In what follows, I return to the works of these scholars for several reasons: first, because it helps us to see the conceptual developments and changes that appeared in the analysis of monetary inflation and that gave rise to the emergence of the quantity theory; second, because it allows us to compare them to previous developments that we saw in the analysis of monetary inflation within the context of small change; and finally, because, although Grice-Hutchinson and subsequent works have confirmed that quantity analysis came from within the intellectual circle of the so-called School of Salamanca, it still seems not to be a well-known finding in certain literature circles, as some works on small change seem to show.⁴⁴

V.2. Earliest versions of the quantity theory of money

As mentioned, what matters for this study is “the astonishment of contemporaries” *vis-a-vis* the so-called revolution of prices and the kinds of reaction and explication they gave to explain it. As we saw, among the earliest reactions in Spain, Hamilton had already registered declarations from the Courts and city governments that blamed commerce and the export of local products to America, as well as the speculation of foreign dealers for the increase in prices.⁴⁵

V.2.1. Jean Bodin and Jean Cherruyt, *seigneur de Malestroit, on money and prices*

The debasement of money was also at the center of some indictments. In fact, a good part of the inflation in the 16th century, in countries like England or France, was also caused by the debasement of money, or manipulation of its value in respect to the money of account.⁴⁶ As we saw, works from the 13th to the 15th centuries denounced the negative consequences of debasement of money on the economy and wealth in general and how it eroded rents, and

⁴⁴ For example, Sargent and Velde began their account of monetary theory or doctrine with the medieval jurists and mention how the growing needs of trade led to the introduction of large denominations of coins and a succession of problems in the multimetallic monetary systems that included “correlations between the quantity of coins and the price level, suggesting a ‘quantity theory’.” However, they make no reference about how these “suggestions” took place and, apart from the reference to the monetary approach of Aquinas, Oresme and Buridan in the thirteen and fourteenth century, they jump over the French and Spanish experience with price revolutions, to comment on Bodin and Mariana’s monetary thought respectively, moving then the scholarly analysis to the sixteen and seventeenth century. Sargent and Velde, *The Big Problem of Small Change*., pp. 13 and 70.

⁴⁵ See note 21.

⁴⁶ Yun Casalilla, *Marte Contra Minerva: El Precio Del Imperio Español C. 1450-1600.*, pp. 133, 136 and 137.

later, although outside the Mediterranean region on which we are focusing, so did other authors, such as Copernicus in Germany. Following this line of analysis, Jean Cherruyt, seigneur de Malestroit, Chief Councillor of Accounts of the Kingdom of France, pointed in 1566 to the debasement of French currency as the cause of the inflation France was experiencing by then.⁴⁷ In a text published under the title *Les paradoxes sur le faict des monnoyes*, sent to the *Court des Monnoyes* and addressed to the king of France, Malestroit states that the inflation was only an apparent phenomenon resulting from a series of debasements of money by French monarchs.⁴⁸ That was the first of two paradoxes Malestroit saw in the French economic situation at that time: that the increase in prices had been compensated by the increase in the nominal value of coins.⁴⁹ The actual metal content of the coins had decreased to the degree that it could be said that the amount of goods that could be bought with the actual amount of precious metals that these coins possessed was the same as before. As a result, he stated that the total real effect of the inflation was zero: prices in terms of precious metal had not actually increased. The inflation was no more than a kind of monetary illusion.⁵⁰ Malestroit perceived the problem in terms of changes in the money of account, since, in terms of gold and silver, the value of things, the purchasing power of those metals, had not changed.

Although his was a strong statement, it seems that his argument had some empirical basis, depending on the time period taken as reference. As Miskimin showed, it seemed that indeed debasement had an important role in inflation, at least in England, if a period of three hundred years was taken into consideration, basically due to the fact that the early 14th- and late 16th-centuries were two periods in which the stock of bullion attained similar levels.⁵¹

⁴⁷ Jean Cherruyt (Cherruies or Cherruier), seigneur de Malestroit was Chief Councillor of Accounts between 1562 and 1568. In 1569, he gets the position of General Financial Official of Bretagne. Before he had been in the office of secretary of the king. Servet affirms that his ascendant career as official granted him abundant privileges. J. M. Servet, "Les Paradoxes Des Paradoxes De Malestroit," in *Or, Monnaie, Échange Dans La Culture De La Renaissance*, ed. André Tournon and G.-A. Perouse (Lyon: 1991), pp. 73-74.

⁴⁸ Malestroit offers his advice to the king. Ibid., p. 75. Jehan Cherruyt seigneur de Malestroit, *Les Paradoxes Du Seigneur De Malestroit, Conseiller Du Roy & Maistre Ordinaire De Ses Co[M]Ptes, Sur Le Faict Des Monnoyes: Presentez À Sa Maiesté Au Mois De Mars, M.D.Lxvi : Auec La Response De Iean Bodin Audicts Paradoxes* (Paris: Chez Martin Le Ieune, 1578).

⁴⁹ "Les prix ont augmenté, explique Malestroit, parce que le metal s'est apprécié en termes d'unités de compte", Servet, "Les Paradoxes Des Paradoxes De Malestroit.", p. 77.

⁵⁰ "Le tout pour la raison dessusdicte, qui est, que les vingt cinq mil liures de maintenant ne contiennent point plus grande quantité d'argent fin, que les cinq mil liures du temps dudict saint Louys," (...) "Parquoy ne se peult dire ny soustenir, qu'aucune chose soit encherie puis ledict temps." Malestroit, *Les Paradoxes Du Seigneur De Malestroit, Conseiller Du Roy & Maistre Ordinaire De Ses Co[M]Ptes, Sur Le Faict Des Monnoyes: Presentez À Sa Maiesté Au Mois De Mars, M.D.Lxvi : Auec La Response De Iean Bodin Audicts Paradoxes.*, p. Aaij.

⁵¹ Miskimin takes Phelps Brown index of prices between 1323 and 1550, which measures prices in terms of money of account. Once the debasement factor is discounted, since between those years the silver content of the pound of account fell about two thirds, the Phelps Brown index in money of constant silver value, changes from

Vilar also points to this “partial” truth of Malestroit’s argument given that silver coinage had been frequently debased in France.⁵² However, if the mid-sixteenth century inflation was to be measured in respect to the situation of the late fifteenth century, currency debasement could not account for the whole increase in prices, supporting instead Bodin’s claim.⁵³

Be that as it may, Malestroit’s view was, however, not a mere conformist position. He was worried about the fact that metal was becoming overvalued in terms of the unit or money of account. He saw it as a disestablishing factor and tried to convince the king that it was also of prejudice for him and his rents, hence his second paradox: rents also, including revenues of the Crown, received less quantity of precious metal. Since they were paid back in the inferior coin, every *rentier* was affected.⁵⁴ Another negative consequence was that, according to Malestroit, debasement led not only to coins having lesser amounts of precious metals, but also that the general amount of precious metal in the country disappeared as a result of Gresham’s law. In a text written a year after the *Paradoxes*, *Memoria sur le faict de la Monnoye*, which Malestroit sent also to the *Court des Monnoyes*, he proposes that the exchange rate between gold and silver coins should be fixed in order to avoid further outflows of metal as a result of Gresham’s law.⁵⁵

Malestroit’s was a pure metalist standpoint: it considered the precious metal content of a coin to be its source of value, and so, the alloy and weight of coins had to be respected, in line with Oresme’s claims. More importantly, underlying Malestroit’s position was the old preconception that the value of precious metals, gold and silver, in terms of other commodities, was (almost if not completely) constant, which made them suitable as a reference or measure of value, belonging to the monetary conception that in the first part of the thesis was characterized as stationary.

106,5 in the fifty-year period 1323-72 to 124,5 in the last half of the sixteenth century. As a result, the rate of inflation, if pounds are taken in their constant intrinsic value, is reduced, debasement counting for the great majority of English inflation. If the minting output between the 13th and the 16th century is also compared, it does not whole either the quantity argument. 2,3 million pounds of silver being minted in the sixteenth century versus the 1,9 millions minted between 1273 and 1372 in the London mint. Miskimin, *The Economy of Later Renaissance Europe, 1460-1600.*, pp. 41-43.

⁵² Only from 1513 to 1563 the silver content of the livre tournois had fallen from 17,96 to 14,27 grames. Vilar, *A History of Gold and Money, 1450 - 1920.*, p. 89.

⁵³ Using again English data. Miskimin, *The Economy of Later Renaissance Europe, 1460-1600.*, p. 43.

⁵⁴ Servet, "Les Paradoxes Des Paradoxes De Malestroit.", pp. 77-78.

⁵⁵ "coins of alloy will drive out those of fine metal by their uncertainty," and he advocates as a sovereign remedy for all monetary evils the maintenance of the just relation (1 to 12) between silver and gold, whether in coin or in bullion" E. E. Rich, "Paradoxes Inedits Du Seigneur De Malestroit Touchant Les Monnoyes, Avec La Response Du President De La Tourette (Review)," *The Economic History Review* 9, no. 2 (1939)., p. 226.

Then, challenging Malestroit's explanation, Jean Bodin (1530-1596), member of the *Parlement* and professor of law in Toulouse, wrote his *Réponse aux paradoxes de M. De Malestroit touchant le fait des monnaies et le enchérissement de toutes choses* (Paris, 1568).⁵⁶ In this text Bodin argues against Malestroit's conclusion based on the idea that the total amount of metal in the economy has changed. For Bodin the inflation appeared as a result of the increase of metal in the economy. He further explains as well that American gold and silver entered through trade with the Spanish kingdom because, among other factors, everything was more expensive in Spain and Italy than in France. In harmony with what would be a quantity vision of money and prices, Bodin also suggests that prices will remain stable if money does.⁵⁷ Bodin, however, did not dedicate much space to the definition of the relationship between prices and money and explains it in the following terms:

“Je trouve que la charté que nous voyons vient pour trois causes. La principale et presque seule (que personne jusques icy n’a touchée) est l’abondance d’or et d’argent, qui est aujourd’huy en ce royaume plus grande qu’elle n’a esté il y a quatre cens ans” (...) *“Voilà, Monsieur, les moyens qui nos ont aporté l’or et l’argent en abondance depuis deux cens ans. Il y en beaucoup plus en Espagne et en Italie qu’en France, parce que la noblesce mesmes en Italie trafique, et le peuple d’Espagne n’a autre occupation. Aussi tout est plus cher en Espagne et en Italie qu’en France, et plus en Espagne qu’en Italie, et mesmes le service et les œuvres de main, ce que attire noz Auvergnaz et Limousins en Espagne, comme j’ay sceu d’eux mesmes, parce qu’ils gagnent un triple de ce qu’ils font en France : car l’Espagnol riche, hautain et paresseux, vend sa peine bien cher ; tesmoing Clenard, qui met en ses epistres au chapitre en despence, en un seul article, pour faire sa barbe en Portugal quinze ducats pour un an. C’est donques abondance d’or et d’argent qui cause en partie la charté des choses.”*⁵⁸

⁵⁶ Bodin, *La Vie Chère Au XVI Siècle: La Response De Jean Bodin a M. De Malestroit-1568.*; In 1578 Bodin will publish a longer version of his response. Einaudi's research, with the edition of Malestroit's unpublished *Memoria*, showed how it was, indeed, a three-side discussion between the two mentioned authors and the president of the Court des Monnoyes, de la Tourette. However, Bodin was replying solely to Malestroit's first text, the *Paradoxes*, and I will focus in this first work and Bodin's reply for the sake of this paper. See Jehan Cherruyt seigneur de Malestroit, *Paradoxes Inédits Du Seigneur De Malestroit Touchant Les Monnoyes, Avec La Response Du President De La Tourette*, ed. Luigi Einaudi (Turin: Giulio Einaudi, 1937).

⁵⁷ Jean Bodin, *Discours De Jean Bodin Sur Le Rehaussement Et Diminution Des Monnoyes, Tant D'or Que D'argent, & Le Moyen D'y Remedier: & Responce Aux Paradox De Monsieur De Malestroit* (Paris: Chez Jacques du Puys, 1578), pp. p. iijbis - p. iiij.

⁵⁸ (Bodin, 1932, p. 9), quoted in Muñoz de Juana, "Moral Y Economia En La Obra De Martin De Azpilcueta.", pp. 30-31; from Larraz López, *La Época Del Mercantilismo En Castilla (1500-1700)*. (1943), p. 77.

However, as Vilar argues, Bodin's 'quantitativism' was neither mechanical nor schematic, in the way of other contemporary perceptions which pointed to the quantity factor among others.⁵⁹ Bodin names the effect of the quantity of money in addition to a whole series of other factors that contributed to the rise in prices: demand (increase in the population of consumers), luxury consumption of kings and princes, foreign trade and foreign speculators, monopolies (or coalitions of sellers), war and the consequent reduction of supplies, famine, corruption, bad administration and the debasement of the coinage.⁶⁰

Whatever the political differences were between them, or whoever grasped more accurately the economic problems of the time, the main conceptual shift between Malestroit and Bodin's explanations of inflation is to go from conceiving that gold and silver, as metals, maintained their purchasing power over time, to a vision of the medium of exchange where the value of gold and silver changes throughout time, depending on its supply and demand.⁶¹

V.2.2. Diego de Covarrubias and Martín de Azpilcueta

Two parallel figures could be seen as representing Malestroit and Bodin's positions in the Spanish milieu: Diego de Covarrubias and Martín de Azpilcueta. Diego de Covarrubias y Leiva (1512-1577) was a pupil of Azpilcueta in Salamanca, and known as "the Spanish Bartolus" because of his mastering of Roman law.⁶² Bishop of Ciudad Rodrigo and later President of the Council of Castile, Covarrubias wrote a text in 1550 about the history of the Castilian coin, the *maravedí*, in which he attributed the contemporary rise in prices mainly to the debasement of money and the fall in its value.⁶³ Having said this, in a text written four years later, Covarrubias explained the mechanism of prices and the role played by the law of supply and demand in its determination. However, he applied it to American wheat but not to

⁵⁹ Vilar, *A History of Gold and Money, 1450 - 1920.*, p. 183.

⁶⁰ Miskimin, 1977, p. 36. Ibid., p. 183. "*le plaisir des Roys et gras seigneurs qui haussent le prix des choses qu'ils aiment.*" According to Le Branchu, in the 1578 edition Bodin adds another factor which is "*le prix des monnoyes ravalé de son ancienne estimation.*" Jacques-Yves Le Branchu, "La Theorie Quantitative De La Monnaie Au Xvie Siecle," *Revue d'Economie Politique* 48 (1934)., p. 1248.

⁶¹ Servet explains that, behind the confrontation between Malestroit and Bodin, it lays the conflict of interests between the different sections of the government offices, the *Chambre des comptes*, the *Cour des monnaie*, the *Court du Parlement*, and intellectuals or scholars that were not part of those offices, as Jean Bodin. Those called "savant de cabinet." Another difference underneath the conflict is the religious war, Malestroit is part of the Catholic movement, while Bodin is under the influence of the "Huguenot" faction. Servet, "Les Paradoxes Des Paradoxes De Malestroit.", p. 75.

⁶² Grice-Hutchinson, *The School of Salamanca: Readings in Spanish Monetary Theory 1544-1605.*, p. 45.

⁶³ *Veterum numismaticum collatio* (1550). Ibid., pp. 52-53.

American silver.⁶⁴ Azpilcueta in contrast related this to money, as well, and so connected the increase in the supply of silver from America to the current inflation in a text written only four years later.

Martín de Azpilcueta (Dr. *Navarrus*, 1492-1586), was a Catholic priest from Navarra who taught in Toulouse, Salamanca and Coimbra.⁶⁵ He linked the arrival of metals from America with the fall in the value of money and the general increase of price and wages in his *Resolutorio de Cambios* ("Resolatory commentary on changes"), an appendix to his *Manual de Confesores y Penitentes* ("Handbook for Confessors"), published in Salamanca in 1556, twelve years before Bodin's *Response* to Malestroit. Before that, he had already published several editions of the *Manual* but only the 1556 edition includes the commentary *On Changes* and thus the economic relationship between metal supply and prices.⁶⁶

⁶⁴ "Prices fall when buyers are few and goods and vendors many, and rise when the contrary conditions prevail." *Variarum ex pontificio, regio et caesareo jure resolutionum* (1554), libri 4, vol. ii, lib. 2, ch. 3. Quoted in *Ibid.*, p. 48.

⁶⁵ Martín de Azpilcueta y Jaureguizar was born the 13th of December of 1492, in Barasoain, in the kingdom of Navarra. He came from a noble family, close to the monarchs of Navarra, who was originally from the Azpilcueta (Aizpetra or Ispetra) Castle in the Baztán Valley, north of Navarra. He studied Latin and grammar in Navarra, then Theology and Philosophy at the University of Alcalá de Henares (in Castile, 1508-09), and Canon and Civil Law in Toulouse (between 1510 and 1523), where he became priest and taught. From 1523 to 1524, in his way to Salamanca, stays in the Monastery of Roncesvalles where Azpilcueta joins the Augustinian order. Till 1538 teaches canon and civil law in Salamanca then in Coimbra till 1552. After coming back to Spain in 1554, editing his works (his *Handbook for confessors* among others) and defending Carranza, archbishop of Toledo against the Inquisition, goes to Rome where Azpilcueta is adviser of Popes S. Pio X, Gregorio XIII and Sixto V, and member of the Tribunal of the Penitentiary till his death in June 1586. Data from different biographical sources, mainly: M. Arigita y Lasa, *El Doctor Navarro don Martín de Azpilcueta y sus obras*, Pamplona, 1895; Hermilio de Oloriz, "Nueva Biografía Del Doctor Navarro Martín De Azpilcueta," (Pamplona: Jiménez Gil, 1998).; Eloy Tejero and Carlos Ayerra, *La Vida Del Insigne Doctor Navarro, Hijo De La Real Casa De Roncesvalles: Texto Manuscrito De Martín Burges Y Elizondo* (Navarra: Navarra Gráfica Ediciones, 1999)..

⁶⁶ The composition of the *Manual* followed a complex process and gave result to several editions and translations. The first edition, published in Portuguese in Coimbra, was edited by request of Cardinal Enrique, Major Inquisitor of Portugal, from a draft a Franciscan monk had previously written and given to Azpilcueta. The book appeared in 1549 in Portuguese and spread widely, being attributed to Azpilcueta. After different revisions and editions of the text, including a Spanish one in 1552, which became basic texts for ecclesiastical education, Azpilcueta wrote a final composition of it that reflected his own thought, by request of the *Consejo de Castilla*. This final version was published in Salamanca in 1556 with the title: *Manual de confesores y penitentes, que clara y brevemente contiene la universal y particular decisión de quasi todas las dudas, que en las confesiones suelen ocurrir de los pecados, absoluciones, restituciones, censuras & irregularidades*. It included an appendix with five commentaries (*commentarios resolutorios*): on usury, changes (*cambios*), mental simony, defense of the other, and notable robbery and irregularity. The second of them, the *Resolutorio de Cambios*, is the mentioned part that includes first form of a crude quantity theory of money. For a whole account of the story of the *Manual* see E. Dunoyer, *l'Enchiridion confessoriorum del Navarro. Dissertatio ad lauream in facultate S. Theologiae apud Pontificium Institutum 'Angelicum' de Urbe* (Pamplona, 1957); quoted in Muñoz de Juana, "Moral Y Economia En La Obra De Martín De Azpilcueta.", pp. 111-112. The critical edition of the *Resolutorio de cambios* I am using is the one edited by Alberto Ullastres, Jose M. Pérez Prendes y Luciano Pereña, based on the 1556 Spanish complete edition of the *Manual de confessors*. Martín de Azpilcueta, *Comentario Resolutorio De Cambios* (Madrid: Consejo Superior de Investigaciones Científicas, 1965).

How was this different from Bodin's later outline of the relationship between quantity of money in circulation and prices? Bodin wrote a political treatise or pamphlet trying to explain the causes of inflation and related the abundance of metal to the increase in prices. Azpilcueta's *Handbook for Confessors* belongs to a different kind of literature, connected to an ongoing debate, concerned with both the moral question of usury in monetary changes, and with the practical issue of regulating new monetary transactions in a context of economic expansion.

The monetization of economic transactions, the increase in the circulation of coins and the need to finance exports to the Indies at fixed time periods, made the use of different forms of payments, from credit to letters of exchange and maritime loans, expand in fairs, reports and marketplaces.⁶⁷ These instruments, which usually entailed high levels of risk on the part of lenders, since sometimes loans were not covered until ships returned from the Indies, opened at the same time opportunities for seeking profits in different ways, and undermined, as well, the prohibition of usury, challenging the way business was carried out. In the new context, merchants, economic agents and dealers faced different moral and religious concerns about the legitimacy of their own activity and confessors had to solve and clarify those concerns. Handbooks for confessors developed to cover that breach, including issues related to contracts, money and commercial transactions.⁶⁸ The question of usury led therefore to the development of a whole branch of jurisprudence dedicated to "changes" (from one currency to another, *cambios* in Spanish), as had happened in Islamic jurisprudence, investigating the legitimacy and character of those changes. Hence, Azpilcueta's speculations in an appendix of his handbook for confessors, the *Resolutorio de Cambios*, were centered on this very problematic: which profits were to be considered legitimate in changes of currency, and not usury? The title of the *Handbook* itself explains how it includes replies to the doubts and questions that were addressed to him.⁶⁹ In order to define which types of currency transactions

⁶⁷ He refers to all kinds of transactions and exchanges of money and coins, including loans, cash changes, bills of change and changes between currencies. For a detailed examination of how, as result of the financial needs of long-distance trade, changes with money and money-changers derived into these different kinds of changes and into international banking, see the "Introduction" of Peter Spufford, "Handbook of Medieval Exchange," (London: Offices of the Royal Historical Society, University College, 1986)., pp. xix-lviii.

⁶⁸ As Vilar states "confessor's handbook became a veritable economic textbook." Vilar, *A History of Gold and Money, 1450 - 1920.*, p. 158.

⁶⁹ Martín de Azpilcueta, *Manual De Confesores Y Penitentes : Que Clara Y Breuemente Contiene, La Universal Y Particular Decision De Quasi Todas Las Dudas, Que En Las Confesiones Suelen Occurrir De Los Pecados, Absoluciones, Resituiciones, Censuras & Irregularidades* (Salamanca: Casa de Andrea de Portonarijs, impressor de la S.C. Magestad, 1557). [1556].

are morally acceptable and generate licit revenues, not usury, Azpilcueta makes a complete analysis of the different kinds of contracts and changes of currency being used at that time.⁷⁰

How did Azpilcueta know about these issues and with what accuracy? Azpilcueta was a moral advisor of merchants and high-level personalities of his time, councillor to princes and *comendador* of the Royal Colegiata of Roncesvalles.⁷¹ Hence, as a result of both his familiar and professional positions and travels, Azpilcueta was in direct contact with the expansionary economic reality of his time and the activity of fairs in different places of the peninsula. Indeed, he came from a region in the north of Navarra that was part of the commercial route connecting France and Castile, and spent several years in Toulouse, also an important commercial center.⁷² Therefore, Azpilcueta had directly witnessed activity in fairs and cities and was acquainted with the different contracts and transactions that, taking into consideration the circulation of different coins and rates of exchange, played with the value of money in order to yield some profit.

Since in some of these forms of currency transactions, gains appeared to be justified due to the different value of money between fairs and cities, this issue leads Azpilcueta to inquire about the value of money and the factors that make it change. In the eleventh chapter of the *Resolutorio*, Azpilcueta outlines a classification of what he considers the eight causes that make the value of coins vary from place to place.⁷³ And after a brief description of the first six factors, in Chapter 12, explicitly dedicated to “the value of money,” Azpilcueta enters into an examination of the seventh factor: the quantity of money in each place. Azpilcueta suggests that money is a commodity (*mercaderia*) and so changes in its value depend on its scarcity [*falta* – supply, quantity] and the “need of it” [*necesidad* - demand], or its *copia o*

⁷⁰ Azpilcueta derives the concept of monetary change from the concept of change in the classification of contracts in Roman law: change (*cambio* in vernacular Spanish or *cambium* in Latin) as permutation (*permutacion*, *permutazione*), trade of one thing for other; and, in monetary changes, changes of money for money in its different varieties. de Azpilcueta, *Comentario Resolutorio De Cambios.*, p. 17.

⁷¹ In 1523 he became *Comendador de San Justo del Villar* (“commander of”), which meant that he administrated the proprieties of the Monastery in Castile and his hospital in Roncesvalles, to which in 1528 was added that of Luymil, under which jurisdiction were the goods the Monastery had in Portugal. Roncesvalles was a commercial and very profitable enclave. Indeed, the prior of the monastery, Azpilcueta’s friend and companion Francisco de Navarra, gave him the title with the purpose of stopping the corruption and disorder that dominated the economic activity of the Monastery. Muñoz de Juana, “Moral Y Economia En La Obra De Martin De Azpilcueta.”, p. 93; and Oloriz, “Nueva Biografía Del Doctor Navarro Martín De Azpilcueta.” pp. 13-14.

⁷² See note 65.

⁷³ The eight factors that make the value of money to change in Azpilcueta classification are: “*El primero, por no ser de un mesmo metal. El segundo, por no ser de metal de un mesmo quilate. El tercero, por no ser de yqual y peso. El quarto, por la diversidad de la tierra en que estan. El quinto, por la reprobación o duda de la reprobación, subida, o baxa del uno. El sexto, por la diversidad del tiempo. El septimo, por la falta y la necesidad del. El octavo, por la ausencia de uno y presencia del otro*” de Azpilcueta, *Comentario Resolutorio De Cambios.*, p. 66.

falta.⁷⁴ It is here, then, in the third qualification to the fact that money is a commodity, that Azpilcueta makes the link between the value of money, as commodity, and the value of other commodities in the economy. Azpilcueta explains how the value of money decreases in places where there is an abundance of it and in respect to other commodity prices, introducing thus the crucial, oft-cited paragraph where he presents what has been considered to be an early “proto” form of the quantity theory of money.⁷⁵

*“Other things being equal, in countries where there is a great scarcity of money, all other saleable goods, and even the hands and labour of men, are given for less money than where it is abundant. Thus we see by experience that in France, where money is scarcer than in Spain, bread, wine, cloth and labour are worth much less. And even in Spain, in times when money was scarcer saleable goods and labour were given for very much less than after the discovery of the Indies, which flooded the country with gold and silver. The reason for this is that money is worth more where and when it is scarce than where and when is abundant. What some men say, that scarcity of money bring down other things, arises from the fact that its excessive rise [in value] makes other things seem lower, just as a short man standing beside a very tall one looks shorter than he is beside a man of his own height”*⁷⁶

Azpilcueta is taking into account the relative value of money, according to the level of prices and wages – its purchasing power – and making it depend on the quantity of metal/money. According to him, when the amount of money increases in a location, its relative abundance in relation to other commodities increases, and its relative value decreases, or the prices of other goods increase. Azpilcueta, although in passing, saw the consequences that the commodity aspect of money had on the role which money played as the measure of value for other goods in the economy. Bodin had explained the same effect but through the

⁷⁴ “Lo segundo, y muy fuerte, que todas las mercaderias encarecen por la mucha necesidad que ay, y poca cantidad dellas, y el dinero en quanto es cosa vendible, trocable o comutable por otro contrato es mercadería... luego también él se encarecerá con la mucha necesidad y poca cantidad del.” Ibid., pp. 73-74.

⁷⁵ “crude” used by Fisher, Fisher, “The Price Revolution: A Monetary Interpretation.”

⁷⁶ Grice-Hutchinson’s translation. Grice-Hutchinson, *Early Economic Thought in Spain 1177-1740.*, p. 104; The original section in Spanish runs: “Lo tercero, que (siendolo al yqual en las tierras do ay gran falta de dinero, todas las otras cosas vendibles, y aun las manos y trabajos de los hombres se dan por menos dinero que do ay abundancia del; como por la experiencia se vee que en Francia, do ay menos dinero que en España, valen mucho menos el pan, vino, paños, manos, y trabajos; y aun en España, el tiempo, que avia menos dinero, por mucho menos se davan las cosas vendibles, las manos y trabajos de los hombres, que despues que las Indias descubiertas la cubrieron de oro y plata. La causa de lo qual es que el dinero vale mas donde y quando ay falta del, que donde, y quando ay abundancia, y lo que algunos dicen que la falta de dinero abate lo al, nascevde que su sobrada subida haze parecer lo al mas baxo, como un hombre baxo cabe un muy alto paresce menor que cabe su ygual.” de Azpilcueta, *Comentario Resolutorio De Cambios.*, p. 74-75.

mechanism of demand and without drawing the consequences it had for a theory of the value of money. Since people had more money to spend they consumed more and that made things more expensive.

Azpilcueta's *Handbook for Confessors* had a widespread impact and appeared in numerous editions in several languages. The first Italian edition appeared in 1569 and the Latin in 1573. Because of this, it is very unlikely that Bodin could have read it. Part of the professional experience of the two authors took place in Toulouse, a university in which they both studied and taught, although in different periods.⁷⁷ There are few traces of any link or mutual influence between the two authors.

V.2.3. *Quantitativism "in the air" or "fermenting" in scholastic circles*

It is quite important to notice that Azpilcueta did not pay any special attention to his formulation of the relationship between quantity of money and prices. As we saw, it is merely mentioned in a section of the Appendix on exchanges to his *Handbook for Confessors*, and appears almost taken for granted. Indeed, the fact that Bodin published his *Réponse* so shortly after Azpilcueta's *Resolutorio* (1568 and 1556 respectively), and put forward the theory from a different perspective, seems to support the thesis that, rather than deriving from Azpilcueta's thinking, the economic relationship of the quantity theory of money was fermenting in their intellectual or scholastic milieu.⁷⁸ Only the debate between Malestroit and Bodin would bring it to a broader public.⁷⁹

However, that the theory was "fermenting" within certain scholarly circles does not mean that it was universally accepted or that its monetary principles immediately applied to money management. Two years after Azpilcueta published the *Handbook*, Luis de Ortiz's *Memorial* to King Phillip II in 1558 not only ignores the theory but also suggests policy measures that contradicted it.⁸⁰ Having said this, during the second half of the century, numerous authors mention the relationship between the amount of metal and prices. Indeed

⁷⁷ To clarify: by the time Azpilcueta was studying and later teaching in Toulouse, between 1516 and 1521, Bodin had not been born yet. Bodin was born in Paris in 1530 and Azpilcueta in Barasoain, Navarra, 38 years before, in 1492. For details on Azpilcueta's stay in France see: Tejero and Ayerra, *La Vida Del Insigne Doctor Navarro, Hijo De La Real Casa De Roncesvalles: Texto Manuscrito De Martín Burges Y Elizondo.*, pp. 57-60; and Oloriz, "Nueva Biografía Del Doctor Navarro Martín De Azpilcueta.", pp. 11-13.

⁷⁸ See note 39.

⁷⁹ In France see, among others, Noël du Fail, *Contes et Discours d'Eutrapel*, 1585; Marc Lescarbot, *Histoire de la Nouvelle France*, 1612. In Great Britain, Gérard Malynes (1601), mentioned in E. Heckscher (1932), quoted in Braudel, *El Mediterráneo Y El Mundo Mediterráneo En La Época De Felipe II.*, p. 689.

⁸⁰ Luis Perdiges de Blas, "Dos Comentarios Sobre La Teoría Monetaria De Los Escolásticos Españoles," *Cuadernos de Ciencias Económicas y Empresariales* 37, no. 1er semestre (2000)., p. 66.

also in 1558, Francisco López de Gómara commented that: “the increase in prices of daily products was a result of the large quantity of silver and gold arriving from the Indies.”⁸¹ Since Azpilcueta’s text had not yet been published, Hamilton disregards its possible influence on contemporary or later authors.⁸² However, in 1561, still before Bodin, Jean Treanchant writes in Lyon that, in currency changes, the value of money is worth more or less than its intrinsic value (*sa prope valeur*) depending on the needs of affairs and the abundance or lack of silver in the place or in bills of exchange.⁸³ Then, both Tomás de Mercado and Francisco García, in 1569 and 1583 respectively, also highlighted the relationship between the low value of money and the abundance of precious metals.⁸⁴ Tomás de Mercado, born in Mexico and travelling frequently to the Indies, points out that the lower estimation money received in America than in Spain, and in Spain than in other parts of Europe, was due to the respective abundance and scarcity of gold and silver:

*“After the Indies, the place where money is least esteemed is Seville, the city that gathers unto herself all good things from the New World, and, after Seville, the other parts of Spain. Money is highly esteemed in Flanders, Rome, Germany, and England. This estimation and appreciation are brought about, in the first place, by the abundance or scarcity of these metals; since they are found and mined in America, they are there held in little esteem.”*⁸⁵

⁸¹ Published in *Annals of the emperor Charles V*, de Gómara, edited by Roger B. Merriman (Oxford, 1912). Hamilton does not give much value to Gómara’s statement because he “solved the problem with a single sentence.” Hamilton, *El Tesoro Americano Y La Revolución De Los Precios En España, 1501-1650.*, p. 308. Le Branchu, however, placed him among the first to formulate the theory, with Bodin. Branchu, “La Theorie Quantitative De La Monnaie Au Xvie Siecle.”, pp. 1249-50.

⁸² The manuscripts were read, at least, by four scholars, among them Prudencio de Sadoval who mentions the American treasure as determinant of prices in his *Historia de la vida y hechos del emperador Carlos V (1604-1606)*, published before 1650. Quoted from Merriman (1912) in Hamilton, *El Tesoro Americano Y La Revolución De Los Precios En España, 1501-1650.*, p. 308.

⁸³ Jean Trenchant, *L’arithmétique* (Lyon, 1561, p. 346), quoted in Sayous, “Observations D’écrivains Du XVIème Siècle Sur Les Changes Et Notamment Sur L’influence De La Disparité Du Pouvoir D’achat Des Monnaies, *Revue Économique Internationale* 1928.”, p. 311.

⁸⁴ “Si los ducatos y reales son menos estimados en las Indias que en España, esto proviene de que en las Indias hay una gran abundancia de oro y plata.” Francisco García, *Tratado utilísimo y muy general de todos los contratos quantos en los negocios humanos se suelen ofrecer* (Valencia, 1583), p. 331. Quoted in *Ibid.*, p. 311. Hamilton recognizes that both de Mercado and García exposed a theory of value similar to that of Saravia de la Calle in which the quantity of money in circulation is a factor. Hamilton, *El Tesoro Americano Y La Revolución De Los Precios En España, 1501-1650.*, p. 306

⁸⁵ He would repeat later on “from Seville on Medina, Lisbon, and any other place, the thing that causes a rise or fall in the market is the abundance or scarcity of silver. If it is abundant the rate is low, and, if scarce, high.” Tomás de Mercado *Tratos y Contratos de Mercaderes* (Salamanca, 1569, pp. 92v and 94-95); Reprinted and translated in Grice-Hutchinson, *The School of Salamanca: Readings in Spanish Monetary Theory 1544-1605.*, pp. 98-99.

Tomás de Mercado would clarify that, in this way, the change in value of money, is not due to a change in its “fineness” but to a different estimation of it that varies with its quantity.⁸⁶ In a very similar way to Bodin, his treatise being published the same year as the latter’s, Mercado then explains the rise in prices as a result of increase of demand produced by the surplus of metals.⁸⁷ In Florence, Bernardo Davanzati (1529-1606) writes in 1582 the treatise *Sopra la moneta*, where he outlines also the quantity theory, as would Noël du Fail three years later in Rennes.⁸⁸ By the end of the century, Luis de Molina (1535-1601), mentioning both Azpilcueta and Mercado, gave the relation as a known fact in his *De Jure et Justitia*, written in 1593.⁸⁹ Molina links metal and prices in terms very similar to those of the above-mentioned authors. As part of an assessment of justice in contracts and currency changes, and just prices, Molina explains how prices were affected by the arrival of gold and silver from America:

“...on account of the abundance of money which has increased in incredible fashion due to the enormous influence of the gold and silver which each year is brought into Spain from the New World and elsewhere. Thus we see that in the last fifty years the prices of commodities have increased twice and three times over...”⁹⁰

⁸⁶ “The profit gained in an exchange transaction does not arise because of any variation in the fineness of the two moneys, or because one is present and the other absent, or as a salary for transporting the money, as many people have thought. It follows that the rate can be founded on no other reason (if it is to have a foundation at all) but the diverse estimation in which money is held from city to city.” That is what explains the activity of money-changers. Tomás de Mercado *Tratos y Contratos de Mercaderes* (Salamanca, 1569, pp. 94-95); Reprinted in *Ibid.*, p. 100.

⁸⁷ As Bodin, Mercado also gives a ranking of countries according to the cost of living, which results an inverse order to that of the “esteem” of money. Vilar, *A History of Gold and Money, 1450 - 1920.*, pp. 164-65.

⁸⁸ “E la Città nostra può darsi il canto di non essere stata delle ultime ad ottenere dal Cielo un tal beneficio, avendovi un suo degno Cittadino Bernardo Davanzati, fin dal principio del Secolo XVI, pubblicato un ragionamento (*Sopra la Moneta*), dove con argomenti assai convincenti, ne dimostra gli errori, e le pessime conseguenze.” Pagnini, *Della Decima E Di Varie Altre Gravezze Imposte Dal Comune Di Firenze: Della Moneta Della Mercatura De' Fiorentini Fino Al Secolo Xvi.*, p. 130. A year before John Hales writes in England *Compendius or brief examination of certain ordinary complaints* (1581), where “the same observation was made.” Grice-Hutchinson, *The School of Salamanca: Readings in Spanish Monetary Theory 1544-1605.*, p. 52. Monroe considered Noël du Fail to be the first to mention the influence of the American treasure on prices. Hamilton says to have checked the different editions of du Fail’s *Les contes et discours d'Eutrapel* (Rennes, 1585) and found no track of it, while Braudel quotes a section of the text where du Fail explain the increase of the prices in France because of the amount of gold and silver that Spanish and Portuguese introduce in France in exchange of wheat. See Hamilton, *El Tesoro Americano Y La Revolución De Los Precios En España, 1501-1650.*, p. 309; and Braudel, *El Mediterráneo Y El Mundo Mediterráneo En La Época De Felipe II.*, p. 689.

⁸⁹ In 1593, Molina also makes the increase in the quantity of money (from the American silver) in Spain responsible for the increase in prices as Dempsey pointed out. Dempsey, “The Historical Emergence of Quantity Theory.” p. 183. Molina’s treatise not only gives account of his familiarity with the daily activity of bankers and the different types of contracts and changes of the moment, but also of his appraisal of the so-called “quantitative theory of money.” Grice-Hutchinson, *Early Economic Thought in Spain 1177-1740.*, pp. 105-06.

⁹⁰ Luis de Molina, *De Jure Et Justitia* (Antwerp: 1615)., Disp. 83, vol. i, p. 144. And later clarifies: “A shortage of money in one place makes the prices of other things lower and an abundance of money makes prices higher. The value of money will increase by as much as the supply in a given place is less and, other things being equal,

Only a year later Domingo de Bañez would also demonstrate knowledge of the theory.⁹¹ That same year a Memorial adopted by the Courts of Castile, this time speaking about the problem caused by the surplus of *vellon*, not of silver and gold, in the region, relates the inflation to the abundance of metal.⁹² In 1600 and 1619 both Martín González de Cellorigo and Sancho de Moncada would point to the American treasure for having caused the revolution of prices.⁹³ By the beginning of the 17th century, the quantity theory had become almost a “commonplace” in Western Europe.⁹⁴

Therefore, as mentioned, to deny contemporary explanations of the relationship between metal and prices did not help to perceive a situation that was probably closer to the scene described by Larraz or Grazier, in which the effect of bullion on prices was considered as an evident fact among certain scholastic circles. The scholars who, in the 16th century, analyzed the economic situation, took into consideration the complex group of factors concurring in the revolution of prices; and some of them pointed out that the value of money was determined by its quantity in writings that often took the fact for granted. Let us now consider in more detail the conceptual changes that occurred during that period, which led to the identification of the connection between amount of metals and prices.

much more can be bought for the same amount of money. Thus if the fruits of the earth in two provinces are in equal proportion and one has a greater supply of money than the other, those fruits will sell for a lower price in that province which has the lesser supply and the workmen there will hire for a lower rate.” de Molina, *De Jure Et Justitia.*, Disp. 348, vol. ii, p. 166. Quoted in Dempsey, “The Historical Emergence of Quantity Theory.” pp. 179-180.

⁹¹ A year after Molina’s publication, in 1594, Domingo de Bañez also comments in the section *De cambiis* of his *De Justitia et Jure* that “in places where money is scarce, goods will be cheaper than in those where the whole mass of money is bigger.” Q. LXXVIII, *De cambiis*, Art. IV. Quoted in Grice-Hutchinson, *The School of Salamanca: Readings in Spanish Monetary Theory 1544-1605.*, p. 57.

⁹² Out of seven negative effects of *vellón*, the Memorial adopted by Las Cortes on the 19th of October 1594 shows that vellon: 1) puts gold and silver out of circulation (Gresham’s law); 2) foments *vellón* imports from outside; 3) induces increases in prices; 4) causes disputes and conflicts about the currency in which obligations should be paid; 5) reduces tax incomes; and 6) imposes on the poor a heavier unequal charge since they are the ones who use it the most. ACTAS, XIII, 351-359; quoted in Hamilton, *El Tesoro Americano Y La Revolución De Los Precios En España, 1501-1650.*, (1934) p. 77. Translation mine.

⁹³ For Hamilton, those two authors, both quoting Bodin, were the first Spanish economists to give an unequivocal explanation of the theory. See *Ibid.*, (1934) p. 309.

⁹⁴ See quotations and references of writers mentioned by E. F. Heckscher (*Merkantilismen*, Stockholm, 1931; vol. II, pp. 224-31); quoted in Grice-Hutchinson, *The School of Salamanca: Readings in Spanish Monetary Theory 1544-1605.*, p. 61. Braudel, who also uses Heckscher, also speaks of the theory becoming a “common place” after Bodin-Malestroit controversy. Braudel, *El Mediterráneo Y El Mundo Mediterráneo En La Época De Felipe II.*, p. 689.

V.3. Conceptual changes towards a quantity explanation of monetary inflation

The quantity theory of money, or the basic economic relationship in which “modern monetarism” is based, is basically the application of the law of supply and demand to money, but money as a unit of measure, and thus, related to the whole structure of value in the economic system: prices.⁹⁵ Its simplest form, $[MV = PT]$, is what has been called “the Cambridge Equation,” or “equation of exchange,” basically a reformulation of Hume’s definition (1752) by Simon Newcomb in 1885, and then finally by Irving Fisher (1911). $[M]$ is the monetary base of the economy and $[P]$ the level of prices. In the simplest version, the velocity of circulation of money, the number of times a piece of coin is exchanged in a certain amount of time, $[V]$, and the number of transactions $[T]$ are considered initially fixed parameters. So, in this way, the amount of money is directly related to the level of prices, the direction of causation going from left to right.⁹⁶ Hence if the monetary base or money supply increases, it leads to a proportional increase in prices (a proportion that would depend finally on the monetization and development of the economy $[V \text{ \& } T]$). $[M]$, the monetary base or money supply, depends on what money is considered to be. In fact, the main challenge for monetary policy nowadays is the changing character of this monetary base, which each time includes new and different forms of financial instruments.⁹⁷ In the 16th century, the expansive use of bills of exchange, as the expansion of credit and *asientos* was also challenging what money entailed and which monetary instruments played the role of money. These new

⁹⁵ Monetarism, in this respect, should be taken as that part of economic thinking focused on explaining the role of money and monetary policy in the economy. Vilar defines “monetarist” as the one who looks to money to explain economic movements. Vilar, *A History of Gold and Money, 1450 - 1920.*, p. 337. In the economic discipline, the terms “monetarism” and “monetary economics” are very recent. They are used to name a particular branch in the economic discipline created by the Chicago School as a reaction to the Keynesian School. Their confrontation is another expression of the dichotomy between monetary versus real factors to explain economic reality. Yet the monetary aspects had always been present and linked to economic analysis before the Chicago School turned it into a separate, “isolated” branch of the economic theory. As Will E. Manson argues, in all the history of economic thought every school includes money as part of its theoretical system. One would have to say that the separation made by monetarism, what Manson calls “Modern Monetarism” or radical monetarism, implies some methodological misunderstandings about the theory of value and the definition of money which are still not clear and derive from the whole methodological confusion embedded in neoclassical thought. Will E. Mason, “Classical Versus Neoclassical Monetary Theories: The Roots, Ruts, and Resilience of Monetarism Keynesianism,” (Boston: Kluwer Academic Publishers, 1995)., pp. 3-11. However, this debate goes far from the scope of this research. I merely use a general idea about what Monetarism is – the basic monetary aspects of classical economics in its historical development – without incurring in much more doctrinal details.

⁹⁶ Thus, money supply expansions do not generate economic growth but only price inflation, which is the so-called assumption of the “neutrality of money.” Contrarily, in the previous Classical versions of Ricardo, Smith, Thornton and Wicksell’s the causal direction was reversed and so money endogenous. Mason, “Classical Versus Neoclassical Monetary Theories: The Roots, Ruts, and Resilience of Monetarism Keynesianism.”, p. 11.

⁹⁷ Banco de España Servicio de Estudios, *La Política Monetaria Y La Inflación En España* (Madrid: Alianza Editorial, 1997).

instruments certainly had an impact on the velocity of circulation of money and prices. Contemporary authors did not yet consider those financial instruments as money, or as part of the monetary base, in the way bank money is conceived nowadays. For those contemporary authors, the monetary supply, if any, was equivalent to the amount of coins in circulation, coins of gold, silver and copper, usually identified with the mass of metals they were made of. Hence, the monetary supply was basically the metal stock of the country. In this way, the mechanism behind the quantity theory of money would obey, by then, the following logic: if the amount of metals increased, prices would rise. In current economies the mechanism is supposed to transmit via interest rates through the bonds market (falls in the interest rates) or/and via rents through the goods market (increases in demand).⁹⁸ In the 16th century, however, financial markets were developing and were not being interfered with by central banks. However the interest rate is considered to be the price of money so the parallel is easy to draw. In metallic monetary systems, the mechanism of the quantity theory of money would transmit via decreases in the price of money as well. When the quantity of metal/money increased, as a result of the law of supply and demand, its value/price would decrease. The price of money would decrease relative to that of other commodities, so the purchasing power of money would decrease. Prices also increased as a result of the demand mechanism. Since there was more money in the economy, people would consume more and prices would rise.

Consequently, to depict the concurrence of the quantity theory of money in the context of a metallic monetary system in the late medieval and early modern period entailed: first, to conceive money as a commodity, made out of metal; second, to consider that being a commodity its value varies according to the law of supply and demand (so being cheap when relatively abundant and dear when relatively scarce); third, to see the link between larger amounts of metal and higher levels of prices, which is to observe that the value of money is proportionally inverse to the value of goods (that when money is cheap other, goods are relatively more expensive). Jacques-Yves Le Branchu distinguished three elements necessary for an explanation of the level of prices to constitute the quantity theory of money: a causal, a proportional, and an automatic component.⁹⁹ The silver and gold arriving from America in context of inflation provided an opportunity to make the cause-effect link between amount of

⁹⁸ These are very basic notions that could be found in any manual or introduction to economics; I beg for the simplification.

⁹⁹ Jacques-Yves Le Branchu distinguishes three elements in the quantity theory of money: the cause-effect element; the proportionality element; and the automatic elements. It is interesting to take his distinction to see the emergence of the theory in the different authors. Branchu, "La Theorie Quantitative De La Monnaie Au Xvie Siecle.", p. 1243.

metals and level of prices. Still, another conceptualization was needed, that of the proportional value of money in respect to goods: its purchasing power.¹⁰⁰

It is important to see in the contemporary authors how these conceptual developments took place and how, through them, a progressive recognition of the quantity components of monetary inflation, exposed in those three main aspects, emerged.

V.3.1. *The commodity character of money*

In the first and second chapter, we saw that the ideas or theories of money during the late medieval period, in contrast with what has usually been thought, were not dominated by a nominalist perception of money, whereby money is a mere token whose value is defined by law. Quite the opposite, most authors we discussed in relation to Aristotle's commentary tradition and the rediscovery of Roman law took into consideration the metallic and material aspect of money. Roman law jurists, in the 12th and 13th century, advocated the coin *bonitas intrinseca* in commercial transactions. Albert the Great held that the mark stamped on the coins was a guarantee not only of its weight but also of its quality. In the following century, indictments against the practice of debasement were based on that idea that the character of the coin, in terms of weight and the alloy of precious metals it is made of, had to be respected.¹⁰¹ During the whole period and in international exchanges the metal content of money was the main parameter of reference in the Mediterranean. At the end of the 14th century Villani recounted with pride the strength and quality of the Florentine coin in contrast to the French currency: "il nostro *fiorino* ch'è ferma e legal moneta di fino oro."¹⁰²

Following this line, Malestroit and Covarrubias's position were basically metalist: the source of the value of money was the amount of precious metal it contained. They did not fully take into consideration that the value of that precious metal changed over time. For them, the fall in the value of money was due to debasement, when coins were made of lesser quantities of precious metals, or devaluated in terms of the money of account by legal royal

¹⁰⁰ I will disregard the automatic element, first because the quantity theory of money does not impose any temporal condition in this regard, in spite of the version of the quantity theory of money vident at Le Branchu's times (third formulation of Fisher), and second, because reformulations of the theory had included different possibilities in this respect, particularly in relation to different mechanisms of transmission into prices.

¹⁰¹ Oresme and Buridan took even into consideration the fact that the intrinsic value of the coin changed in the markets and, so, monetary authorities had to adjust the nominal value of the coin, in terms of the money of account, accordingly, to make the monetary system sustainable. Still, this adjustment was conceived as an occasional measure, the expected general tendency was that of the stability of the value of gold and silver.

¹⁰² G. Villani's *Cronica*, quoted in Cipolla, *Money, Prices, and Civilization in the Mediterranean World, Fifth to Seventeenth Century.*, p. 23.

decrees. So again, underlying Malestroit's position was the old notion that the value of precious metals, gold and silver, was (almost if not completely) constant, which made them suitable as a reference or measure of value.

To recognize the metallic content of money did not mean necessarily to accept that its value could fluctuate with markets. This possibility had created several conflicts in scholastic debates from the thirteenth and fourteenth centuries on, in order to conciliate the vision of a stable measure of value with the economic reality of a currency of fluctuating nature. This conception was first put into question during those experiences with small change, where the value of small coins was seen as determined by their quantity, or where their impact on inflation was first observed. The notion was then finally shaken by the monetary disturbances of the sixteenth century.

V.3.2. Money as a commodity whose value fluctuates with the law of supply and demand

We find then that Bodin belongs to a different conceptual setting than Malestroit, in line with Azpilcueta's. Both Bodin and Azpilcueta had observed that gold and silver, as metals, do not maintain their purchasing power over time. For Bodin, the value of the metal from which the currency is made, gold and silver, changed, as that of other commodities, depending on its "quantity" and "need," the supply and demand. This was not a new idea, however, its full implications were not always considered. Azpilcueta recognizes his debt to Soto and Cajetan, who he says are in agreement with the same opinion on the issue presented by Calderino, Laurencio Rodolpho, and Sylvestro.¹⁰³ He later added this was a common view shared by everybody (*buenos y malos*) in the Christian world.¹⁰⁴ Latin commentators on Aristotle, but not Islamic ones, commented on the Aristotelian section about money in future exchanges, where it was recognized that the value of money fluctuates as any other commodity. That the value of money changed according to its supply, its scarcity or abundance, was also recognized by Aquinas, Henry of Ghent and Antonino of Florence.¹⁰⁵ As Aquinas recognised, the element of scarcity was indeed what made precious metals so "precious."¹⁰⁶

¹⁰³ de Azpilcueta, *Comentario Resolutorio De Cambios.*, p. 74. Although Azpilcueta does not refer to him, Medina had also pointed out to the commodity character of money. Based on Larraz, Muñoz de Juana comments also how there is some mention of this in Juan de Medina's « Codex de restitutione », *De poenitentia, restitutione et contratibus*, Alcalá, 1546), who was also influenced to some degree by Francisco de Vitoria, Luis de Molina and Báñez. Muñoz de Juana, "Moral Y Economia En La Obra De Martin De Azpilcueta." p. 31.

¹⁰⁴ de Azpilcueta, *Comentario Resolutorio De Cambios.*, p. 74.

¹⁰⁵ Monroe, *Monetary Thought before Adam Smith.*, p. 18. See first chapter.

¹⁰⁶ "la rareté esta la principale cause de la valeur des métaux précieux," commented in Branchu, "La Theorie Quantitative De La Monnaie Au Xvie Siecle.", p. 1245.

Cajetan and Antonino di Firenze outlined that the value of money changed according to its supply and demand, the latter pointing also to the effect this had on the purchasing power of money.¹⁰⁷ As Grice-Hutchinson, and earlier Larraz had pointed out, Domingo de Soto (1491-1560) in 1553, in book VII of *De iustitia e iure* (applying the teachings of St. Antonino) had also conceived the price of money to be determined by the forces of supply and demand.¹⁰⁸ De Soto, as Nicholas of Cusa (1401-64) before him, had been, according to Sartori, influenced by Buridan's works.¹⁰⁹

As reflected in Azpilcueta's work, the role of fairs in this conceptual change was crucial. It is not surprising that those developments in monetary thinking took place in relation to the literature "on changes" as Boyer-Xambeu point out.¹¹⁰ The transactions and changes of money that developed in those fairs, which took place in different parts of Europe (from Medina del Campo, Rioseco, Villalón to the subsequent fairs in Flanders) in particular seasons, and where merchants and economic agents changed money and programme transactions from one fair to the other, made them completely aware of the changes in value which money experienced from one place to another and from one period to the next.¹¹¹

¹⁰⁷ Points already exposed by Ullastres and Larraz. Alberto Ullastres Calvo, "Las Ideas Económicas De Martín De Azpilcueta," in *Comentario Resolutorio De Cambios* (Madrid: Consejo Superior de Investigaciones Científicas, 1965), p. xcvi. Larraz mentioned how Antonino linked scarcity with the value of money and its purchasing power. According to Larraz, in this way, "quantitivist" thought was presented already in Aristotle, St. Thomas de Aquinas and Antonino di Firenze and it was the latter who, even before Azpilcueta, defined it in terms of the relative prices of the rest of the goods. Larraz López, *La Época Del Mercantilismo En Castilla (1500-1700)*, pp. 72-73.

¹⁰⁸ Tomas de Mercado: "like Soto, bases 'modern exchange transactions' on 'the diversity in the estimation of money', brought about by the forces of supply and demand." Grice-Hutchinson, *Early Economic Thought in Spain 1177-1740*, pp. 105-06.

¹⁰⁹ See Duhem, "Dominique Soto et la scolastique parisienne," *Bull. Hispanique* 12, (1910): 275-302. Mentioned in Sartori, *Introduction to the History of Science (3 Vols.)*, (1947), vol. III, part I, pp. 544-45.

¹¹⁰ Marie-Therese Boyer-Xambeu, Ghislain Deleplace, and Lucien Gillard, *Monnaie Privée Et Pouvoir Des Princes : L'economie Des Relations Monétaires a La Renaissance* (Paris: Editions du CNRS: Presses de la Fondation nationale des sciences politiques, 1986), p. 11.

¹¹¹ Contemporary chronicles of these fairs, the economic transactions and monetary instruments developed in them give good evidence of this. As do the collections of letters of merchant families as those of the Simon Ruiz (letters from Medina del Campo to France from 1558-1598). See: Henri Lapeyre, *Une Famille de Marchands, les Ruiz, contribution a l'étude du commerce entre la France et l'Espagne au temps de Philippe II* (Paris: Armand Colin, 1955); or Valentin Vázquez de Prada, *Lettres Marchands d'Anvers*, (Paris: S.E.V.P.E.N., 1960, vol. I-IV) For contemporary treatises on contracts and economic transactions see from *Provechoso Tratado de Cambios y Contrataciones de Mercaderes y reprobación de usura* (Valladolid, 1541-42) by Cristobal de Villalón; *Instrucción de Mercaderes* (1544) by Luis Saravia de la Calle; *Tratado de Prestamos* (Toledo, 1546) by Luis de Alcalá; *De restitutione et contractibus tractatus* (1550) by Juan de Medina; *De justitia et jure* (Salamanca, 1553) by Domingo de Soto, confessor of Charles V; and *Summa de notas copiosas* (Valladolid, 1553) by Diaz de Valdepeñas; to Tomás de Mercado's *Suma de Tratos y Contratos* (Seville, 1571); *Arte de los contratos* (Valencia, 1573) by Bartolomé de Albornoz; and *Tratado utilísimo y muy general de todos los contratos quantos en los negocios humanos se suelen ofrecer* (Valencia, 1583) by Francisco García; Grice-Hutchinson, *The School of Salamanca: Readings in Spanish Monetary Theory 1544-1605*, p. 11, 15, 49; and Sayous, "Observations D'écrivains Du XVIème Siècle Sur Les Changes Et Notamment Sur L'influence De La

Also related to “changes,” the literature and discussions on usury made authors progressively aware of the fact that the value of money changed from one place to another or with time, which led them to soften the argument of the sterility of money (that money could not yield or give birth to money) and to advance the idea of money as capital, which would consolidate within the Franciscan order.

Two particular developments are credited to Franciscan scholars: first, the recognition of the productivity aspect of money (money as capital); and second, the creation of the Monti di Pietà in the 15th century.¹¹² The Franciscans founded these institutions to give financial assistance to poor sectors of the population and enable them to escape from the usurers, thus avoiding the spread of other “more usurious” practices. They charged only a small percentage of interest (5%), in relation to what other banks charged at the time (30%).¹¹³ The acceptance of the charging of interest was the result of a long process that involved a series of theoretical developments by Franciscan friars throughout the second part of the 13th and 14th centuries, as well as practical experience gained in managing the Monti di Pietà. It raised intense debates within and outside the order, which culminated with the final official acceptance from the General Chapter of the order in 1498.¹¹⁴ The issue would continue to raise concerns, however, as authors such as Tomasso di Vio (Gaetanus or Cayetanus, as quoted by Azpilcueta) persisted in opposing any form of interest.¹¹⁵ Dominican and Augustinian theologians or canonists also would not accept any form of it.

The idea of money as capital appeared first in Olivi and from him, although not usually quoted (since he was later condemned by the Inquisition for other reasons), in S. Bernardino di Siena and S. Antonino di Firenze. Olivi accepts the profit of capital because he considers that money has a portion of the profit that will be later gained in investing it, and

Disparité Du Pouvoir D'achat Des Monnaies, *Revue Économique Internationale* 1928.", p. 296. Sayous gives also a collection of related French and, mainly, Italian treatises in the period, pp. 294-96.

¹¹² The first Franciscans to found and expand the Monti di Pietà were Giovanni da Sestri Levante and Michele d'Aqui (s. XV?). Bazzichi recounts how the first Monte di Pietà was founded in 1358 in Florence by Francesco da Empoli but did not charge interest and did not work out. The first succesful story, this time based on charging a reduce percentage of interest, 1462 in Perugia by pater Barnaba da Termi. Bazzichi, "Teorie Monetarie Francescane Nel Tardo Medioevo.", pp. 55, 76 and 68.

¹¹³ Ibid., p. 75.

¹¹⁴ There were differences of opinion in this respect also among Franciscans. See the debates in the Ordenance of 1493, between Michele d'Acqui, who did not want to accept any form of interest to erase any kind of concern or doubt about the activity of the Monti di Pietà; and Bernardino da Feltre (1439-1494), who considered a minimum rate of interest, in function of the service or labour, necessary for the functioning of those institutions. The thesis of the latter, after approval of the Popes and some scholars, was finally accepted in the General Chapter of the Order of 1498, in Milan. Ibid., pp. 76-7.

¹¹⁵ Ibid., p. 77.

then, its owner will have a right to that portion, which deserves the name of capital.¹¹⁶ It was Raymond de Roover who clarified that most of Antonino's ideas, particularly those about the productivity of monetary capital, derived from Bernardino.¹¹⁷ Then Spicciati traced them back to Olivi.¹¹⁸ Alessandro di Alessandria (1268-1314), successor of Duns Scotus, also followed Olivi and developed the idea of money as capital and accepted the idea of "*lucro cessante*", going further than Bernardino or Antonino in this respect.¹¹⁹ Alessandro introduced a new type of money. In addition to money by nature (medium of exchange) and money as usury (not natural) we find money "*campsonia*" (changes of money).¹²⁰ This comes from the particular translation that Moerbeke did of the *Politics* as Langholm illustrated, that allowed for the distinction between trade and change of money. The early scholastics in this respect legitimated trade but condemned changes or trading of money.¹²¹ Henry of Ghent had clarified this issue before and legitimized *campsonia*, if it entailed a fair trade of money, while he condemned usury.¹²² Alessandro follows Henry of Ghent in this respect, accepting as well gain on the part of the moneychanger because of the service he does for society.¹²³ Henry of Ghent had justified the profit of the moneychanger as a result of his labour or as compensation or indemnity.¹²⁴ Most of the literature after that until the 16th century (Azpilcueta) would deal with the legitimacy of profits in certain changes of money, depending on circumstances and cases. The relevant aspect in Alessandro is that in order to consider the gain in the change of money as legitimate, he places attention on the intrinsic value of money,

¹¹⁶ "una ragione di guadagno" Part later repeated by S. Bernardino. Ibid.p. 68.

¹¹⁷ Ibid., p. 65.

¹¹⁸ Spicciati, "Capitale E Interesse Tra Mercatura E Povertà Nei Teologi E Canonisti Dei Secoli Xiii-Xv."; After than a whole set of the literature turned to analyze the work of S. Bernardino. See various works by Todeschini. Bibliography in Bazzichi, "Teorie Monetarie Francescane Nel Tardo Medioevo."p. 66. Quoting extensively to Olivi, Alessandro, Astesano e Gerard of Odonis, all Franciscan masters, Bernardino recognizes the importance of commerce and the legitimacy of profit. In particular he accepts the revenues deriving from investing in the manufacturing of wood, a profitable enterprise in the Toscan region at that time. Bernardino distinguishes these rents from those of the unproductive money which are the illicit ones. The public good or the benefit of society will be the justification of this kind of revenue (the one of the productive money) being accepted. Bazzichi comments how Bernardino almost repeats literally some parts of Olivi's text even if not quoting him. Bazzichi, "Teorie Monetarie Francescane Nel Tardo Medioevo.", pp. 67-8.

¹¹⁹ Bazzichi, "Teorie Monetarie Francescane Nel Tardo Medioevo.", pp. 57-8. See again a more extended analysis in Spicciati's various works on these authors.

¹²⁰ Ibid., p. 59.

¹²¹ Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*,p. 269.

¹²² Ibid., pp. 249-275.

¹²³ Bazzichi, "Teorie Monetarie Francescane Nel Tardo Medioevo.", p. 60.

¹²⁴ Although Henry of Ghent does not recognize the right of compensation merely under the excuse that the lender "needed" its money but he seems to open the case for interest as compensation under the principle of opportunity cost in the case of money of wards that the parents could need for business purposes. Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200-1350.*, pp. 269 & 273.

dealing with money as with any other commodity.¹²⁵ It is in this way that the theory of the double value of money – intrinsic (metal) value versus nominal or legal (political) value – was transmitted through Astesano di Asti (?-1330) to Azpilcueta.¹²⁶

In sum, seeing money as merchandise and recognizing the role played by the intrinsic value of money in currency changes had come to be a more or less common view by the 16th century. This is what makes Azpilcueta affirm that it was such an extended opinion that it almost appeared to be a law of God and nature.¹²⁷ Nevertheless, some contemporary prejudices considered still that the money exchanged within a country should not be treated as merchandise.¹²⁸

V.3.3. *Quantity of metal and inflation*

Although acknowledged, the role played by the amount of metal in defining the value of money was, however, blurred by a series of other factors, such as cost and risks of transportation.¹²⁹ Azpilcueta included the price of the metal as one of the determinants of the value of money.¹³⁰ Although the impression in daily transactions was not necessarily always that of abundance, the quantitatively important flows of silver and gold arriving from America prompted the making of the cause-effect link with the increase in the level of prices, especially during those years where the direct impact of metals on prices proved to be more evident, from the mid-16th century on.¹³¹ It was at that time when some authors, such as Juan de Medina (1550) and Domingo de Soto (1553), pointed out the role of the abundance of

¹²⁵ Bazzichi, "Teorie Monetarie Francescane Nel Tardo Medioevo.", p. 60.

¹²⁶ Astesano di Asti, *Summa di casibus conscientiae* (or *Astesana*), 1317. Ibid., p. 61.

¹²⁷ Based on Larraz, Muñoz de Juana comments also how Azpilcueta was inspired also by Juan de Medina (There is some mention of this in the «Codex de restitutione», *De poenitentia, restitutione et contratibus*, Alcalá, 1546), who was also influenced to some degree by Francisco de Vitoria, Luis de Molina y Báñez. Muñoz de Juana, "Moral Y Economia En La Obra De Martin De Azpilcueta." p. 31.

¹²⁸ See position of Azpilcueta's contemporary Simon Ruiz, Castilian merchant, who refused to deal in sales of money within a country, because the money sold in this way could not be treated as merchandise. See John T. Noonan, "Review: *Une Famille De Marchands: Les Ruiz; Simon Ruiz Et Les Asientos De Philippe Ii*; by Henri Lapeyre," *The Journal of Economic History* 20, no. 2 (1960)., p. 336.

¹²⁹ See for example Cristobal de Villalon, mentioned also in Sayous, "Observations D'écrivains Du Xvième Siècle Sur Les Changes Et Notamment Sur L'influence De La Disparité Du Pouvoir D'achat Des Monnaies," *Revue Économique Internationale* 1928., p. 308.

¹³⁰ See previous note 73.

¹³¹ Indeed, some documents recount the perception of lack of both cash and letters of exchange in certain moments and first all around the century. Sometimes fairs as that of Medina del Campo had to be postponed because of shortage of specie, in 1543, 1553, and 1554. Grice-Hutchinson, *The School of Salamanca: Readings in Spanish Monetary Theory 1544-1605.*, p. 3.

metal (quantity of metal - supply side) in lowering the value of money, as a result of the impact of American gold and silver.¹³²

They thus perceived the causal connection underlying the quantity theory but not its proportionality component. The fine distinction that would lead closer to an exposition of the quantity theory of money, would be to consider that the value of money changes not only as a commodity or in respect to the precious metal that it contains, but also as money, that is, as a measure of value of other things and as a means of exchange.¹³³ In other words, the purchasing power of money, its value in respect of other things, changes when the amount of metal varies.

V.3.4. *The purchasing power of money or the proportionality component*

To conceptualize and reconcile the impact of this commodity character of money with its role as a measure of value was, however, more complicated. It was necessary not only to distinguish carefully the two aspects of money, metal and currency, the intrinsic value of the coin and its nominal value (or value in terms of the unit of account), but to link them with the role of money as a measure of value for other things.

Both Aquinas and Antonino had already spoken in terms of the purchasing power of money, that is, not the nominal value of money but its real value in respect of other commodities.¹³⁴ We mentioned how the confluence of the influence of Roman law, and the literature on changes, the intrinsic value of money, “*valuer prope*”, “*propiedades naturales*” or value “*como metal*,” was taken as one determinant of its price, distinguishing it from its nominal price or official value in terms of the money of account.¹³⁵ A further distinction appeared between the value or price of money in respect to the units of account (its nominal value) and the “*estimation*” of money, which was the real measure of the value of money in respect to other goods. Mercado would point out the “*estimation*” or “*esteem*” of money as a

¹³² Juan de Medina's *De restitutione et contractibus tractatus*, 1550; “the more plentiful money is in Medina the more unfavourable are the terms of exchange, and the higher the price that must be paid by whoever wishes to send money from Spain to Flanders, since the demand for money is smaller in Spain than in Flanders.” Domingo de Soto's *De Justitia et Jure* (1553, Lib. 7, Q. V., Art. 2); quoted in *Ibid.*, p. 55.

¹³³ I would like to especially thank Prof. Angel Rodriguez García-Brazales for helping me to understand these issues.

¹³⁴ “when gold is hoarded, it becomes scarce, and more goods will be given for the same money.” Carl Ilgner, *Die volkswirtschaftlichen Anschauungen Antonins van Florenz*, (Paderborn: 1904), pp. 132-33; quoted in Monroe, *Monetary Thought before Adam Smith.*, p. 18.

¹³⁵ Terms from Jean Trenchant (*L'arithmétique*, Lyon, 1561) and Tomás de Mercado, quoted in Sayous, “Observations D'écrivains Du XVIème Siècle Sur Les Changes Et Notamment Sur L'influence De La Disparité Du Pouvoir D'achat Des Monnaies, *Revue Économique Internationale* 1928.”, p. 308. See first chapter.

determinant of its value.¹³⁶ Then, Azpilcueta would state explicitly that the value of money can change not only as metal but also as currency, a measure of value.¹³⁷

Azpilcueta developed a complex account of the value of money, where, based on Aristotelian grounds, he introduced this subtle distinction and combined the two aspects of money into a single theory of the value of money, while connecting it with the value of other commodities. To do so Azpilcueta, following the scholastic tradition, takes the Aristotelian theory of value, using the example of shoes, which have a proper use as shoes, to be worn, and a secondary use as a commodity, to be exchanged, and applies that same logic to money.¹³⁸ In a similar way, the main and principal use of money is to be a price, a standard of value and medium of exchange; and the secondary use, “less principal”, to be a commodity, which serves to gain with its trade.¹³⁹ Being an expert on both canon and Roman law, Azpilcueta combined a nominalist and metalist approach to money. Money played a dual function in society, as both commodity and legal tender. His main contribution was to connect the exchange value of money, which varied with the law of supply and demand, to

¹³⁶ And which Vilar identifies with the purchasing power of money, although Mercado is speaking of the value of money in relation to its abundance or scarcity, not in relation to rest of the goods. Vilar, *A History of Gold and Money, 1450 - 1920.*, p. 164. It is simply because money is abundant that it is less esteemed. Mercado explains the nuances in this terminology: “we must realize that the value and price of money are not the same thing as its estimation. A very clear proof of this is that in the Indies money is worth the same as here; that is to say, a *real* is worth 34 *maravedís*. A peso is worth 13 *reales*, and its price is the same in Spain, but although the value and price are the same the estimation is very different in the two places. For money is esteemed much less in the Indies than in Spain.” Later he adds: “since money will be more abundant, its estimation will fall.” Tomás de Mercado *Tratos y Contratos de Mercaderes* (Salamanca, 1569, p. 92v); Reprinted in Grice-Hutchinson, *The School of Salamanca: Readings in Spanish Monetary Theory 1544-1605.*, pp. 98-99.

¹³⁷ “*el valor del dinero no solamente puede subir o baxar, en quanto el es un pedazo de metal, pero aun en quanto es dinero y precio de lo al*”, de Azpilcueta, *Comentario Resolutorio De Cambios.*, p. 80.

¹³⁸ Shoes is the example of commodity given by Aristotle in the *Politics* to explain to the two types of “use” or purpose any commodity has (“use-because of itself” and “use in exchange”): “Of everything which we possess there are two uses: both belong to the thing as such, but not in the same manner, for one is the proper, and the other the improper or secondary use of it. For example, a shoe is used for wear, and is used for exchange; both are uses of the shoe. He who gives a shoe in exchange for money or food to him who wants one, does indeed use the shoe as a shoe, but this is not its proper or primary purpose, for a shoe is not made to be an object of barter. The same may be said of all possessions, for the art of exchange extends to all of them, and it arises at first from what is natural, from the circumstance that some have too little, others too much.” Aristotle, *Politics.*, p. 14. Aristotle did not deny that money may be exchanged (in changes). He simply censures the art of getting-wealth by exchange in general, and then adds that the works of all this forms of getting wealth is usury: “For money was intended to be used in exchange, but not to increase as interest” (p. 17). Hence, the door was left opened for scholastic to make the distinction between changes with money and usury. See Spiccianni, “Capitale E Interesse Tra Mercatura E Povertà Nei Teologi E Canonisti Dei Secoli Xiii-Xv.”

¹³⁹ “*Al tercer argumento respondemos negando que la moneda (en quanto es moneda) siempre se considera, como precio, porque aun en quanto es moneda, se puede comutar por compra trueco o otro contrato nominado o innominado, como arriba queda dicho. Ca puesto que el fin y uso primero y principal para que se hallo, sea para que fuesse precio y medida de las cosas vendibles. [Here making reference to the Digesto, to Aristotle’s Politica and to Aquinas’ de regimine principum] Pero su fin y uso secundario y menos principal, que es de ganar con el, tratando en dinero por dineros, no es ser precio, sino ser mercaderia, como el fin y uso principal del calzado, es calzarlo y traerlo calzado. Pero el secundario es ganar tratando en comprando y vendiendolo;*” de Azpilcueta, *Comentario Resolutorio De Cambios.*, p. 79.

the use value of money, which was the measure of value of other goods in the economy. Thus, Azpilcueta finally replaces the concept of “estimation,” used by Mercado, with that of purchasing power, which connects finally the value of money with the level of prices.¹⁴⁰ Most of the elements of the quantity theory of money were already there, but Azpilcueta connected them in a single sequence that displayed the monetary causes of monetary inflation.

We have mentioned how Azpilcueta, as a result of his experience as moral advisor to merchants and nobility, councillor to princes and *comendador*, was in direct contact with the economic reality and the expansionary activity of fairs at that time.¹⁴¹ Therefore, in an effort to reconcile this economic reality with the old principles of Christian jurisprudence, he found an abstract formulation of the role of money in economy. Most scholars at that time were also aware of these developments. Azpilcueta’s position, placed between these different worlds, allowed him to develop a synthesis that led him to put forward the first description of the quantity theory of money, breaking new ground for future scholars.¹⁴²

In line with previous research by Larraz, Grice-Hutchinson and Cipolla, my work defends two postulations: first, that the formation and acceptance of a “crude” quantity theory of money was the result of a long process of development, even if appearing explicitly for the first time in Azpilcueta’s *Resolutorio*; and, second, that the understanding of the economic relationships behind it, by the time Azpilcueta, Bodin and Mercado wrote on these issues, was “already in the air” among scholastic circles, as Grazier pointed out. An analysis of Azpilcueta’s conceptual framework, and the scholars he discussed and quoted in his work, shows this.

We have seen the conceptual changes that brought out the quantity element of monetary inflation and how that quantity element led to an early (“proto” or “crude”) formulation of the economic relationships that would become the quantity theory of money.

I am going to explore, then, in more detail a comparison of previous notions of the quantity element of monetary inflation as it appeared in the context of small change inflation,

¹⁴⁰ Grice-Hutchinson, *The School of Salamanca: Readings in Spanish Monetary Theory 1544-1605.*, p. 56.

¹⁴¹ See note 71.

¹⁴² Gazier argues that if Azpilcueta saw the impact of money in quantity terms, in contrast with other authors who merely looked to the impact of monetary manipulations in nominal terms, or debasement, this was because firstly, in Spain the consequences of the entrance of metals from America were observed more directly. Secondly, this was the case because of the stability of the nominal value of the Castilian *maravedí*, in the absence of devaluations, in contrast with what was happening in France. This led to the analysis as that of Malestroït’s. “*La stabilité monétaire espagnole mène avec force vers une explication du type quantitatiste.*” Gazier and Gazier, *Or Et Monnaie Chez Martín De Azpilcueta.*, p. 116.

with these actual early propositions of the quantity theory of money. Therefore, at this point, I will address the comparison of the quantity elements in al-Maqrīzī's text with what is considered the earliest formulation of the theory: Azpilcueta's. I will contrast their ideas and observe the possible factors that made them arrive at, what appear to be, similar conclusions in their monetary analyses.

V.4. Changing monetary conceptions in the Mediterranean: quantitative elements of monetary inflation in contexts of small and big change inflation

In the previous chapter and in the context of the problem of small change and of small change inflation, we saw a few proposals, first in Florence and then in Cairo, that, by reducing the amount of small coins in circulation, attempted to increase the value of those small coins or stop inflation and economic crisis.

Oualalou has compared the monetary content of al-Maqrīzī's *Ighāthah* and *Shudūr* with the monetary writings of Malestroit, Bodin and Gresham. His comparison identified the following parallels: first, he considered al-Maqrīzī's description of the silver flowing out of Egypt while copper was invading the Egyptian markets to be an early definition of what was later to be called Gresham's law: that bad money drives out good money.¹⁴³ As to the quantitative element, Oualalou discusses it in the framework of the debate between Malestroit and Bodin, unaware of the earlier formulations of the School of Salamanca, and concludes, on one hand, that al-Maqrīzī remains close to Bodin, since he makes the quantity of money responsible for inflation.¹⁴⁴ In this sense, Oualalou compared al-Maqrīzī even with Irving Fisher.¹⁴⁵ On the other hand, Oualalou also suggests that al-Maqrīzī is close to Malestroit, since for him gold and silver standards had to be maintained, not debased or devalued, in

¹⁴³ Oualalou defends how al-Maqrīzī is not only taking into consideration the old idea that bad money spells out good money, but introduces social, political and even psychological elements in the analysis of this economic principle. It "dépassé en profondeur même celle de Gresham, car elle fait intervenir dans l'interprétation, l'élément politique et social et refuse de se lier à une explication qui relève de la psychologie monétaire." Oualalou, *La Pensée Socio-Économique De Al-Maqrizi*. p. 59. He later refers to the connotations of power and affluence that gold and silver coins bring into the popular imagineries in opposition to the sign of decadence related to those of copper (p. 65). A symbology that goes back in fact to Plato and Ibn Rushd picked up in his commentary to Plato's *Republic*. Ibn Rushd, *Averroes Commentary on Plato's "Republic"*., pp. 142-43. Plato, *La République*., pp. 224-25 (415a).

¹⁴⁴ "L'analyse d'ELMAKRIZI se rapproche de celle de Bodin, dans la mesure où il montre que la quantité de monnaie disponible en comparaison avec l'offre des biens sur le marché agit sur les prix." (...) "C'est pour cela qu'il demande à ce qu'on rattache les monnaies en cuivre à l'étalon argent afin que la définition de la valeur de ces pièces soit directement liée au rapport de change avec la monnaie argent et que la quantité des fous soit limitée." Oualalou, *La Pensée Socio-Économique De Al-Maqrizi*. p. 77 & 78. The latter part is only explained in the *Shudūr*, as we saw. al-Maqrīzī, *Thalath Rasa'il (I) Al-Nuqud Al-Islamiyah*., p. 19.

¹⁴⁵ Oualalou, *La Pensée Socio-Économique De Al-Maqrizi*. p. 5.

order to avoid price illusions.¹⁴⁶ The kind of paradoxes al-Maqrīzī speaks about is fundamentally different to that of Malestroit. It is true that both denounced here similar facts: that the purchasing power of precious metals is basically the same. However, while Malestroit wants to show that nothing has changed and that all the inflation is due to debasement, al-Maqrīzī gives evidence that although the inflation is not so high if measured in gold terms, what matters is that in terms of the copper money of account, the unit actually used by people in transactions, the purchasing power of that money, and so that of most rents, has dramatically plunged. He is denouncing a kind of monetary illusion that follows an expansionary monetary policy: people think that they have more money, in this case more copper, but the actual purchasing power of that money has decreased because of the consequent inflation that followed the expansionary monetary policy. The only illusion Malestroit denounces is prices, not rents or wages. In al-Maqrīzī, prices are not illusions because people are dying of hunger.

The overall conclusion of Oualalou's comparison is somewhat confusing. At a certain point he suggests that al-Maqrīzī resembles Malestroit because, in contrast to Bodin, he does not refer to the influx of precious metal.¹⁴⁷ In another section, however, Oualalou highlights the quantity component of al-Maqrīzī's monetary analysis and proposals for monetary reform.¹⁴⁸ Oualalou concludes that al-Maqrīzī's views on money are a "synthesis" of those of Malestroit, Gresham and Bodin.¹⁴⁹ Moreover, as mentioned, some of his statements seem to emphasize that Gresham's law "*sur le bimétallisme*" is the main contribution of al-Maqrīzī's works.¹⁵⁰ It was probably due to this confusion that the quantity component of al-Maqrīzī's monetary proposals has been neglected since. I argue, however, for the importance of that quantity component. In the previous chapter we saw how al-Maqrīzī does speak about the influx of copper coming from the land of the *Franks*.¹⁵¹ The only difference with Bodin, in this respect, is that the inflation al-Maqrīzī deals with is a "small-change" inflation, instead of a "big-change" inflation as that of Europe in the revolution of prices. Now, I would like to

¹⁴⁶ Ibid., pp. 68 and 76.

¹⁴⁷ Ibid., p. 69.

¹⁴⁸ "*Par ailleurs, il insiste à plusieurs reprises sur la nécessité d'appliquer une réforme monétaire qui tendrait à diminuer la masse monétaire, à mettre fin à la circulation des foulous et à rétablir le règne de l'argent à défaut de celui de l'or.*" Ibid., p. 94.

¹⁴⁹ "Plus riche" synthesis, since "elle est d'une part plus politique et d'autre plus complexe." Ibid., p. 76.

¹⁵⁰ Ibid., p. 4 & 78. Probably Oualalou's identification of al-Maqrīzī's approach with those of Gresham and Malestroit comes from his intention of drawing a parallelism between the situation of Mamlūk Egypt and that of Arab countries in his time, and denouncing in this way the political causes of the crisis, as can be observed in the introduction and the conclusions of his study.

¹⁵¹ See note 147.

compare his proposals with Azpilcueta's early formulation of the quantity theory of money, in respect to the conceptual developments that led to the emergence of that theory, as we saw in the previous section.

V.4.1. *Money and prices in al-Maqrīzī and Azpilcueta*

I am going to compare two authors, al-Maqrīzī and Azpilcueta, who wrote in different geographical places, Salamanca and Cairo. They came from two different traditions of thought, Christian and Islamic scholasticism, and there was also a difference of a hundred and fifty years of between them. Their lives were set in different historical contexts, the Spanish and Mamlūk empires, each with a different economic structure. Spufford has drawn a certain picture of the common “fate” of the Spanish and Mamlūk dominions.¹⁵² While gold and silver passed through Spain, it was only an intermediary stop and was part of a broader circuit of trade that linked the recently-discovered territories of America with central Europe. A similar situation held in the Mamluk sultanate in the 14th- and 15th centuries since gold, silver and copper arrived in Alexandria and Middle Eastern ports from Venice, the Mediterranean and the north of Africa, but only on their way to India and the Far East. However, the key similarity is that both authors wrote in periods that experienced important levels of inflation, an important part of which was due to monetary causes.¹⁵³ Al-Maqrīzī lived, nevertheless, in an economic context of recession while Azpilcueta lived in an expansionary one. In those contexts both authors drew similar connections between the increases in the quantity of metal and the “price revolutions” their respective countries were witnessing.

Al-Maqrīzī wrote in the midst of the inflation and general economic depression that desolated Egypt at the beginning of the fifteenth century. Azpilcueta presented his theses on money in an economic situation of expansion and inflation, during the earliest years of the Spanish Empire and the American conquest. Their motivations and socio-economic positions also differ: Al-Maqrīzī's purpose was to stop the crisis and restore the economic equilibrium. From his position as *muhtasib* in the Circassian Mamlūk administration and as a religious scholar, al-Maqrīzī wrote a first treatise analysing the economic situation and proposing

¹⁵² Spufford, *Money and Its Use in Medieval Europe*., p. 353.

¹⁵³ In addition to this, in 16th century Spain and Europe, as in 15th century Egypt, the greatest rise in prices occurred in the agricultural sector, and so was particularly felt in foodstuffs, or “unprocessed agricultural products.” The divergence between the behavior of agricultural and industrial prices may be result of different elasticities, since the agricultural supply is much inelastic in the long run than the industrial one, given the limited amount of land. Based on studies of David Feliz, Miskimin, *The Economy of Later Renaissance Europe, 1460-1600.*, pp. 44-45.

measures to solve the crisis, and a second treatise analysing the monetary policy the sultan had followed and giving further suggestions to improve it. Within the Mamlūk factions' internal struggles for power, al-Maqrīzī leaned against the monetary policy followed by certain Mamlūk administrations. Coming from a family of well-recognized scholars and administrative officials, al-Maqrīzī worked within the regime but had problems with some factions of it and finally left public office.

Azpilcueta wrote to assess the moral quality of some transactions with money that were expanding between the cities and markets, and generated some doubts among the consciousness of those Christians who practiced them. Coming from a family of the Navarran nobility and having received the Augustinian order in Roncesvalles, his position was quite close to the Castilian and Portuguese monarchies. He held as well a high position as canonist in both academia and the Church, ending his days as concillor to several popes in Rome.¹⁵⁴ Although his moral opinions and religious behaviour were very strict (he denounced the corruption in some clerical positions and religious orders as did al-Maqrīzī) his critiques and moral concerns, as well as his writings are focused on individual action.

Al-Maqrīzī's grasp of some of the elements of the quantity theory of money came from observing the data on prices and monetary movements in the period, from his position as market supervisor, and deducing the connection between inflation and the increase in the minting of copper coins. Azpilcueta's formulation of the quantity theory of money derived from his experience with mercantile activity in Castile and Toulouse, and his inquiries about the value of money in assessing the legality of certain changes of money.¹⁵⁵

¹⁵⁴ Azpilcueta worked as councilor for the nobility and important merchants and businessmen. He was religious adviser of the princess Dña. Juana of Austria, sister of Carlos V and married with the king Juan III of Portugal, with whom Azpilcueta had also quite a close relationship. Oloriz, "Nueva Biografía Del Doctor Navarro Martín De Azpilcueta.", pp. 55-73. Azpilcueta was also adviser of the popes S. Pío V, Gregorio XIII and Sixto V, and member of the Tribunal of the Penitentiary, till his death in 1586. He taught *Prima in canones*, the most prestigious course in canon law in Salamanca from 1537 to 1541. See Enrique Esperabé Arteaga, "Historia Pragmática E Interna De La Universidad De Salamanca," in *La Universidad De Salamanca: Maestros Y Alumnos Más Distinguidos*, ed. Enrique Esperabé Arteaga (Salamanca: Imp. Y Lib. De Francisco Núñez Izquierdo, 1917), p. 285.

¹⁵⁵ When speaking about how the value of money may vary from one place to the other, because of changes in the value of the metal, or in that imposed by monarchs, who revalue or devalue it, Azpilcueta makes even an explicit mention to his time in Toulouse: "*Por el quarto, de estar en diversas tierras, vale una mesma moneda mas en una tierra que en otra, segun Caldeino recebido: o porque el metal della vale mas en la una, que en la otra, como el oro vale mas en España, que en las Indias, y en Francia, que en España; porque el Rey, o la costumbre de la otra, como en el tiempo, que nos estudiamos y leymos en Tholosa de Francia el Rey della levanto mucho los precios de uss ducados del sol, ...*", de Azpilcueta, *Comentario Resolutorio De Cambios.*, p. 67.

In respect to the actual outlook of the quantity aspects of monetary inflation that both authors achieved, despite both envisioning a similar relation between the quantity of money in the economy and price levels, they did so in the context of different conceptions and discourses about money. Al-Maqrīzī's main stance was that the minting of money should be controlled and the value of money of each denomination, gold, silver and copper, kept in a fixed relationship to permit a sound functioning of the economy. For this to happen, it was necessary to respect the standards set for gold and silver currencies and peg the value of the copper small coin to them, according to production and minting costs, in an extension of what has been called the “monetary *sunnah*”, or monetary principles that regulated monetary transactions in Islamic jurisprudence. On the other side, Azpilcueta observed the expansion of exchanges (commercial and monetary) and explained the shift in the value of money from one region to another as a result of the amount of metal in circulation, which differed between regions. These alterations in the value of money because of its quantity did not pose a problem for him and in fact, he reconciled them with his overall canonical vision of money and changes. For Azpilcueta, the fact that money as a commodity could be exchanged and that its value differed depending on the laws of supply and demand was compatible with the existence of money as legal tender and as a standard of value; the only consequence was that when money was abundant, its value decreased not only in terms of other currencies but also in relation to other commodities, which were relatively more expensive than when money was scarce.¹⁵⁶

In relation to the concept and functions of money, both al-Maqrīzī and Azpilcueta were the inheritors of a common Aristotelian monetary thought. Both considered money as a standard of value, in its abstract and legal dimension, and as a medium of exchange, legal tender or “legal money” (*nuqūd* in al-Maqrīzī or *moneda publica* in Azpilcueta). At the same time both were aware of the metallic dimension of money, as a commodity, although only Azpilcueta accepted the consequences this has on the fluctuating character of its value, depending on changes in metal markets. Probably due to the context of mercantile and financial expansion of 16th-century fairs, Azpilcueta did not examine money only as legal tender, in its function as a public institution, but also within the mercantilist and financial spheres. The foreign exchanges and monetary transactions occurring in these new spheres revealed to him new dimensions of the nature of money. In this respect, Azpilcueta's analysis of the concept and functions of money is far more elaborate than that of al-Maqrīzī. Apart

¹⁵⁶ See note 139.

from the mentioned “economic” functions of money, as a standard of value and a medium of exchange, Azpilcueta introduced the third “economic” function of it as a commodity, along with others. Al-Maqrīzī is also aware of the use of coins as metal, in order to create different items.¹⁵⁷ It is at this point that the distance between the two perspectives became broader. Al-Maqrīzī observed that the increase in the quantity of copper made the purchasing power decrease, which is similar to Azpilcueta’s conclusion, but arrived at from the demand side as a result of increases in consumption, as in Bodin. Al-Maqrīzī does not consider one element which would be necessary for an exposition of the quantity theory of money: that if money is made of metal, which is a commodity, its value changes according to the laws of supply and demand. Indeed, when al-Maqrīzī sets the rates of exchange for the three coins in circulation, from their intrinsic and minting costs, he does not raise the issue of what would happen when those relative values would change, because of, for example, changes in the supply of any of the metals. There remained in al-Maqrīzī the kind of resistance towards the fact that the commodity character of money may change that was also displayed by other Islamic scholars and was particularly exemplified by Ibn Rushd’s refusal to mention, in the commentary to Aristotle’s *Ethics*, that money may change.

Although al-Maqrīzī’s monetary conception was far less refined in theoretical terms, he also represents a benchmark with respect to his own tradition of thought. First, because he saw the impact of quantity on prices, as only later authors would do in the case of the American treasure and the revolution of prices, and, second, because he attempted to regulate copper. Both authors, Azpilcueta and al-Maqrīzī, introduced important innovations in the economic discourses of their times, first, as a result of witnessing the effects of metal flows on their different settings; and second, by proposing innovative solutions to solve them or conceptual developments to resolve opened questions.

The two scholars place attention on a key factor which was altering the monetary structure of their countries: the increase in the quantity of metal (copper on the one side, imported from Europe; and silver and gold on the other, arriving from America). Moreover, they observed the changes that this had on the value of money in respect to the value of other commodities, the purchasing power of money and rents. Al-Maqrīzī outlined this point in his analysis: how the acquisition capacities of rents decreased as a result of inflation in the different classes of Egyptian society. Azpilcueta also introduced this in his exposition on the

¹⁵⁷ He mentions how in moments when the value of silver coins has deteriorated it is melted and used for jewelry, but he does not see the implication of this for the value of money as currency.

value of money, observing how the real value of money decreased when it was in relative abundance to other goods.

But the difference is that for Azpilcueta, it is the purchasing power of money that changes, while for al-Maqrīzī it is the acquisition capacity of rents. In both cases, it was, nevertheless, a crucial step, not only to link prices and money in the quantity theory of money, but also to observe the general role of money in the whole structure of values in the economy. Moreover, they explicitly exposed these views as economic logics, as part of something suitable, at least in al-Maqrīzī, for use in articulating economic policy.¹⁵⁸

Although religion was an important element in al-Maqrīzī and Azpilcueta, both authors offered a particular balance between religion, reason, and tradition in their writings. Notwithstanding the rhetorical use of religious phrases, religion did represent their moral reference but it was not the main resource with which they justified their arguments. Quite the opposite, their approach, at least as far as the use and management of money is concerned, is rational and positivist. They rely on experience and observation. In particular, al-Maqrīzī supports his arguments with large amounts of economic data, while Azpilcueta seems to support his views on experience at a more micro level. Only once those realities were observed, and their causal mechanisms revealed, did they then define the kind of measures and assertions to be made according to their moral principles, that is, seeking the common good. A similar stance can be taken concerning the role of authority and tradition for both authors.¹⁵⁹

In sum, both authors perceived the causal relations underlying the quantity theory of money, as well as the proportional dimension between quantity of money and quantity of goods. However, only Azpilcueta completed the picture by relating money as a unit of measure and money as a commodity in a single theory of the value of money.

¹⁵⁸ As has already been mentioned, when Azpilcueta is explaining that the value of money changes depending on the amount of it in circulation, he states this as if being a law of God and nature. “*Que este es el comun concepto de quasi todos los buenos y malos de la Christiandad, y por ello parece boz de Dios y de la naturaleza,*” de Azpilcueta, *Comentario Resolutorio De Cambios.*, p. 74. In his argument for fixed exchange rates, al-Maqrīzī makes a similar appeal to what is a “natural and legal rule” (legal in the sense of religious law, or the way of God): “people’s condition will not be set straight unless they are made to follow a natural and legal rule” [fixed exchange rates], translated in Tomass, “Al-Maqrīzī’s Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary.” p. 136; al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah.*, p. 131.

¹⁵⁹ “contra uso de toda la Christiandad” (Lex *Periculi pretium*, ff. De náutico fœnore [Digesto 22, 2, 5]) de Azpilcueta, *Comentario Resolutorio De Cambios.*, p. 7; Or the numerous mentions in al-Maqrīzī to tradition and previous customs.

V.4.2. Possible connections from Cairo to Salamanca

I chose Martín de Azpilcueta to compare with al-Maqrīzī because he is considered to be the first scholar to have put forward the complete economic relationship of the quantity theory of money. Another factor in this choice was that I initially hypothesised that his cultural and social environment could be one factor explaining some intellectual links with the Islamic world, and thus with al-Maqrīzī, given the connected history of Christian and Islamic communities in the Iberian Peninsula during Medieval times. In the event, however, the evidence did not fully bear out this hypothesis. In the first instance, Azpilcueta's primary focus on canon law and theology, the teaching of which he combined, connects his thought with the Italian or French legal tradition as much as with the Spanish one.¹⁶⁰ From the other side, the Languedoc region in which Bodin was rooted also had a long history of cultural and intellectual transmissions and encounters that would be interesting to examine.¹⁶¹ In that sense the set of connections and exchanges between the different peoples of the Mediterranean region at the end of the medieval period was basically common to both. In the transmission of Aristotle's commentaries, this intercultural connection affected Azpilcueta or Bodin, as well as Mercado and Mariana, as it did Oresme and Buridan, or Albert Magnus and Aquinas, in the same way.

Having said this, there is a copy dated 1415 of al-Maqrīzī's *Shudhūr al-nuqūd*, his later history of coins, in the Royal Library of El Escorial (Mss. 1771), in Madrid, as well a manuscript (Mss. II 773) of as-Subkī, another author who criticized the debasement of money in late fourteenth-century Egypt and Syria. How and when al-Maqrīzī manuscript arrived at the library is not known, as it is also not known whether the scholars of the circle of Salamanca could have been familiar with it or had any knowledge of it. Al-Maqrīzī's is not listed in the earlier catalogue of the library of 1577 that Morata ascribes to Diego de Urrea.¹⁶² That means it should have come to the library later, as part of one of the private collections

¹⁶⁰ For the connection and influence, mainly in theology, of the University of Paris and French scholars on the School of Salamanca and some of his main figures, as Francisco de Vitoria or Domingo de Soto, see Juan Belda Plans, *La Escuela De Salamanca* (Madrid: Biblioteca de Autores Cristianos, 2000), p. 27. For the role of Azpilcueta in institutionalizing the study of canon law and Thomist theology, combined, see Luis Enrique Rodríguez-San Pedro Bezares, "Historia De La Universidad De Salamanca I: Trayectoria Y Vinculaciones," in *Historia De La Universidad De Salamanca I*, ed. Luis Enrique Rodríguez-San Pedro Bezares (Salamanca: Ediciones Universidad de Salamanca, 2002), p. 122.

¹⁶¹ One of the transmission belts with Catalonia, according to Baeck. Baeck, *The Mediterranean Tradition in Economic Thought*, p. 120.

¹⁶² Nemesio Morata, "Un Catálogo De Los Fondos Árabes Primitivos De El Escorial," *Al-Andalus* 2 (1934), p. 102.

that formed the library after 1577.¹⁶³ Therefore, it could not form part of the private library of Francisco de Navarra (1498-1563), who donated his books to the Royal Library after his death and had been an intimate friend and travel companion of Azpilcueta, as well as prior of the Monastery of Roncesvalles - monastery in which Azpilcueta spent a period of his life and was *commendador*. The collections of Diego Hurtado de Mendoza (1503-1575) or Juan Páez de Castro (1512-1570), his counselor, arrived also before 1577, so al-Maqrīzī manuscript was not a part of them.¹⁶⁴ It is more likely then that it was part of the Moroccan king Mawlāy Zaydān's library, which, with about 4000 volumes of books on medicine, philosophy, grammar, law and politics, was seized in 1612 and moved to El Escorial in 1614.¹⁶⁵ It gives evidence that al-Maqrīzī's manuscript and similar ones were circulating in Spain, either from the Granada, the Maghreb, Venice or Turkey. It is however difficult if to draw a full picture of the series of Arabic manuscripts circulating in the Iberian Peninsula at that time. Almost half of the Arabic manuscripts in the library of El Escorial, not fully catalogued, were lost in the fire of 1671.¹⁶⁶ It is difficult as well to assess the Arabic manuscripts in the library of the University of Salamanca, or the also well-stocked libraries of the *Colegios Mayores* ("High Colleges") or of the convents of the city, such as the Dominicans of S. Esteban, because some

¹⁶³ The library of El Escorial was created in 1565 from books collected in France, Flanders, Venice, Portugal, Greece, Italy, etc., the private library of Phillip II, collected by him and his father (with more than 1200 books), thus, different private and ecclesiastical libraries that were later incorporated, among others those of Conde de Luna, Don Pedro Ponce de León, Don Diego Hurtado de Mendoza, Don Francisco de Mendoza y Boadilla, Conde-Duque de Olivares, of the prior of the monastery of Roncesvalles, the Real Chapel of Granada, and that of the Moroccan king Muley Zaydan. See Braulio Justel Calabozo, "La Real Biblioteca De El Escorial Y Sus Manuscritos Árabes: Sinopsis Histórico-Descriptiva," (Madrid: Instituto Hispano-Árabe de Cultura, 1978), pp. 18-19. See also Morata, "Un Catálogo De Los Fondos Árabes Primitivos De El Escorial," pp. 87-104.

¹⁶⁴ The collections of Juan Páez de Castro and Hurtado de Mendoza, the first one with more than 61 Arabic manuscripts, arrived to the Real Library of El Escorial in 1572 and 1575 respectively. The collection of Hurtado de Mendoza included five books on history. See: G. De Andrés, "Entrega de la Librería Real de Felipe II (1576). Edición, prólogo e identificación de obras", en *Documentos para la Historia del Monasterio de San Lorenzo el Real de El Escorial*, pp. 234-323, (Arabic manuscripts in pp. 284-292). Justel Calabozo, "La Real Biblioteca De El Escorial Y Sus Manuscritos Árabes: Sinopsis Histórico-Descriptiva," pp. 52, 92, 139-149, 171.

¹⁶⁵ The story of Mawlāy Zaydān's library is recounted by García Arenal and Gerard Wiegers. In 1612, Mawlāy Zaydān, worry about his future after the ascet Ibn Abi Mahalli took over and proclaimed himself sultan, trusted his library and possessions to the French "merchant" Jean Philippe Castelane, to take them to Agadir by ship where he would meet them. However, Castelane headed for France and, in the way, his ship was captured by Spanish vessels that brought the booty to Spain. In 1614 Juan the Peralta, the prior of El Escorial, asked for the books which were finally donated to the El Escorial library, where they remained, in spite of the intense and long negotiations Moroccan authorities would develop in the following decades and centuries. See Mercedes García-Arenal and Gerard Albert Wiegers, *Entre El Islam Y Occidente : Vida De Samuel Pallache, Judío De Fez*, 1. ed., Historia; Variation: Historia (Siglo Veintiuno De España Editores) (Madrid: Siglo XXI de España Editores, 1999), pp. 112-114.

¹⁶⁶ Lots of printed books were lost plus more than 4000 manuscripts. First catalogue of the library is from 1760-70 by Casiri, Justel Calabozo, "La Real Biblioteca De El Escorial Y Sus Manuscritos Árabes: Sinopsis Histórico-Descriptiva," pp. 19 and 188-194. Aurora Cano comments how up to 2500 Arabic manuscripts from the ones collected from different private libraries in the Iberian peninsula, the battle of Lepanto and the library of the Moroccan king Mawlāy Zaydān (Muley Zidan), were lost in that fire. Aurora Cano, *Indexación De Los Manuscritos Árabes De El Escorial* (Madrid: Ediciones Escorialenses, 1996), pp. 13 & 24.

of them were also lost in different relocations and conflicts.¹⁶⁷ In 1690, some of the Arabic books of those libraries were moved to Madrid.¹⁶⁸ According to Santander, the books of the “*Colegios Mayores*” were sent to the library of the Royal Palace (later of El Escorial) after the extinction of these institutions and the confiscation of all their goods (including the libraries) in 1798, by Charles IV.¹⁶⁹ Those were restored back to Salamanca only in 1954.¹⁷⁰ The number of books lost in the different moves throughout the centuries may have been important, so an accurate picture of the books circulating in the universities and intellectual circles during the mid-16th century is difficult to portray today. Azpilcueta studied in Salamanca and Alcala, both important centers for the teaching of Arabic and Hebrew.¹⁷¹ However, I have seen no evidence of him being in contact with or interested in these issues, as I did not find any evidence of Azpilcueta having access to al-Maqrīzī’s treatise, in his studies, travels or books.¹⁷²

¹⁶⁷ Rodríguez-San Pedro Bezares, “Historia De La Universidad De Salamanca I: Trayectoria Y Vinculaciones.”, p. 126.

¹⁶⁸ To be delivered to Morocco as one of the conditions imposed by the Moroccan king in the Larache’s rendition. Ibid., p. 146. This aspect is however controverted. No delivery was finally set.

¹⁶⁹ Some were lost in different ways or destroyed during the war of independence with France at the beginning of the 19th century. Justel Calabozo, “La Real Biblioteca De El Escorial Y Sus Manuscritos Árabes: Sinopsis Histórico-Descriptiva.”, p. 199.

¹⁷⁰ Teresa Santander, *La Biblioteca De D. Diego De Covarrubias Y Leyva (1512-1577)* (Salamanca: 2000)., p. 39.

¹⁷¹ The University of Salamanca was one of the few universities of the Roman Curia to create a tri-lingual catedra, to teach Arabic, Hebrew and Caldean, following the decree of the Council of Viena in 1311. According to Concepción Vázquez de Benito it was created in 1381, with two professors for the teaching of the three languages. It was part of the Arts Faculty. By the 16th century, however, it was difficult to find a professor able to teach the three languages, and there are no clear records that explain who was teaching it in the first half of the century. In 1549, José Fajardo, vicedean of the Tri-lingual College received the catedra and Cristóbal de Madrigal after him. Concepción Vázquez de Benito, “Actas Xvi Congreso Ueai (Prologo)” (Salamanca, 1995)., p. 8. The interreligious conflict affected badly the development of these disciplines. For example, Abraham Zacuth, (or Abraham Ben Samuel Zacuth, known as Diego Rodríguez and born in Salamanca in 1450), who is thought to be teaching Astrology in Salamanca by the end of the 15th century, left the country with the expulsion of 1492. The catedra of Hebrew was vacant (although at least by 1531 covered by a lecturer, Fidelefo o Filelfo) from 1506 to 1561. Esperabé Arteaga, “Historia Pragmática E Interna De La Universidad De Salamanca.”, pp. 281 and 303. A tri-lingual college was opened in 1550, directed by Cristóbal de Madrigal (who knew Hebrew, Caldean and some Arabic). Rodríguez-San Pedro Bezares, “Historia De La Universidad De Salamanca I: Trayectoria Y Vinculaciones.”, p. 121. There are little traces in the archives of the university about the teaching of Arabic, however, in the main courtyard of the old building of the University of Salamanca, graved in stone over one of the doors that give entrance to the teaching rooms, it may be read “Catedra de arabe, arameo y hebreo.”

¹⁷² In the University of Alcala he attended the lectures of Sancho Carranza de Miranda and Juan de Medina. To Alcala were brought professors of the University of Paris, which was one of the centers of influence of Aquinas’ thought. In Toulouse, Azpilcueta was a student of Andrea Alciato, Basilio Tolosano, and Antonio de Petrucia. Tejero and Ayerra, *La Vida Del Insigne Doctor Navarro, Hijo De La Real Casa De Roncesvalles: Texto Manuscrito De Martín Burges Y Elizondo.*, p. 60. Some sample of the books Azpilcueta possessed may be found in the *Inventario post mortem*, compiled two days after his death, on the 23rd of June 1586, and authorized by Pontio Seva, in Rome, where he moved with his whole library. Whether he managed or not to carry all his books to Rome, his library there was still quite well provided, with more than 230 titles. Some of them are already quoted by Azpilcueta in his work: Anannia’s *Prepositus*, Giovanni d’Andrea’s *Mercuriales*, S. Antonino’s *Summa*, S. Thomas Aquinas’ *Opera* (fifteen tomes) & *Disputationes*, Aristotle’s *Ethica* & *Theologia*,

In spite of this, throughout this study I came across a rich net of interconnections and common themes between Azpilcueta and al-Maqrīzī's traditions of thought and cultural frameworks. First, going back to the sources and authors they quoted, many parallels and commonalities may be identified between the monetary conceptions of their intellectual milieus, in line with the common Mediterranean tradition rooted in Aristotle, reviewed here in the first chapter.

Their schools of religious jurisprudence, and scholastic traditions shared a whole set of principles, methods and values that led to very similar positions towards moral economy, in particular regarding usury, just price, contracts and money.¹⁷³ This stance has been demonstrated by Grice-Hutchinson's research about the parallel developments of Jewish, Islamic and Christian jurisprudence on commercial contracts. They depart from very similar values and principles in respect to social justice, charity and wealth that crystallized in very rigid principles regarding economic issues. When these legislative corpuses had to confront similar commercial realities, in an effort to reconcile their strict canonist legislations with the practical economic necessities of daily life, they developed over time very similar legal fictions and contracts.¹⁷⁴ Grice-Hutchinson's thesis is that in the development of those

Augustine's *Summa, Regula & Opera*, Baldo's *Opera* and *Succesionibus*, Bartolo's *Opera*, Caetano's *Opuscula, Commentaria & Summa*, Giovanni Calderino's *Consilia*, John Maior's *Sententiarium*, Medina on Aquinas & *Recta in Deum fide*, Panormitano's *Consilia*, Scoto's *Opera & De Origine*, Soto's *Justitia et Jure, Sententiarium & Treatise on ratione tegendi et detegendi secreto*, and Sylvestro's *Rosa Aurea & Summa*. Among other books recorded in the inventory *post mortem* it is worthy to mention: Alcyato *Opera, Summa trinitate* & other treatises, Covarrubias *Opera* and *Epithome (super matrimonio)*, Francisco de Vitoria's *Relectiones undecim*, Boetius and S. Bernardino's *Opera*. Among the books in the inventory we also find a good collection of canonical treatises, *Decretales, Constitutiones, Speculum Juris Pontificii* and an important number of *Concilia*, including the Concilium of Paris, some books on history, some on heretics, and dictionaries. There are also some books or treatises that are not well identified ("*decem volumina diversorum tractatum*", "*Maleus maleficiorum*", or "*Foneca in libris methaficiorum*"). María Luisa Larramendi de Olarra and José Olarra, *Miscelánea De Noticias Romanas Acerca De D. Martín De Azpilcueta, Doctor Navarro* (Madrid: Espasa-Calpe, 1943), pp. 68 and 193-99.

¹⁷³ Common ideas about the just price or *pretium iustum*, derived from the Justinian Corpus, which in the Islamic jurisprudence is also a king of market or negotiated price; similar prohibitions of usury (*riba*) or unjustified benefit based on hazard (*Turpe lucrum – gharar*). See for the Christian side Antonio García y García and Bernardo Alonso Rodríguez, "El Pensamiento Económico Y El Mundo Del Derecho Hasta El S. XVI," in *El Pensamiento Económico En La Escuela De Salamanca*, ed. Ricardo Robledo and Francisco Gómez Camacho (Salamanca: Ediciones Universidad de Salamanca, 1998), pp. 68-72.

¹⁷⁴ "Our three religions went through the stages that are common to many bodies of doctrine. In all three, the original and revolutionary teaching of their founders came to pass through a period of so-called 'tradition' (...) And, in all three, there came a time when the first inspiration had faded, when prophets and saints gave way to scholars, when the broad lines of doctrine had been laid down, and when debate became a matter for professionals who used a language and method of their own: in short, a time of scholasticism" (...) "The three religions thus followed parallel paths, but at long intervals from each other. Hence we find discussed among Christians, as late as the seventeenth century, typically scholastic problems that had been thrashed out among Jews and Moslems long before" Grice-Hutchinson, *Early Economic Thought in Spain 1177-1740*, pp. 14-15. In this work Grice-Hutchinson illustrates her thesis with particular cases of common legal fictions and contracts between the three traditions of scholasticism.

fictions, in the art of mastering the law to circumvent Jewish and Islamic prohibition of usury and different constraints over commercial activity, Christian scholars learnt from their Jewish and Islamic counterparts, adopting their contracts and legal instruments. This can be illustrated by comparing the different medieval Islamic contracts which avoided usury through techniques of profit and loss sharing (what nowadays could be called joint ventures) and similar medieval contracts in Italy and Castile. Udovitch has already shown how the Italian form of the contract called the “*commenda*” was identical to forms of Muslim and Jewish contracts.¹⁷⁵

Similarities in Christian, Jewish and Muslim scholastic thought and their parallel developments and phases can only be explained through the presence of connected histories. The existing research, still in its preliminary phase, on transmission of ideas and communication of scholars between the different traditions of scholasticism, discloses a kaleidoscope of exchanges and interconnections.¹⁷⁶ However, despite being intuitively evident, a full account of the particular ways in which scholars and ideas were in contact and the sequence of their inter-dependence would require further detailed and comprehensive studies in the transmission and circulation of manuscripts, techniques and practices. That is especially the case of those disciplines in which it is not always possible to follow a chronological path of inventions and discoveries as happens with theology or moral philosophy.¹⁷⁷ There is quite abundant literature on the influence and impact of Arab scholars and texts in the development of sciences in Europe, particularly in medicine, astrology, astronomy, mathematics, alchemy, physics, botany, zoology, occult sciences, etc., and even

¹⁷⁵ Udovitch examined the common elements between the *qir'ād* or *muḍārabah* and the Jewish *'Isqa*. Udovitch, "At the Origins of the Western Commenda: Islam, Israel, Byzantium."; as later corroborated by Pryor's study, Pryor, "The Origins of the Commenda Contract.", p. 33 & 36.

¹⁷⁶ A good example is the confluence of historical events and factors in the “philosophical revolution” of twelfth century, which, in Schumpeterian terms, opened the door to classical scholasticism and to “scholastic science.” A key element in that intellectual awakening was the boom in translation works. It was at this moment when the Almohad conquest of al-Andalus put an end to centuries of tolerance towards Jewry in Muslim Spain and many Jews families had to emigrate to the North. From the Iberian Peninsula they went to Provence where established. Grice-Hutchinson narrates how many of them in course of time lost the proficiency of Arabic but as physicians had contact and need of Arabic texts. Therefore they dedicated to translate into Hebrew the chief works of Arabic science and philosophy. Indeed, the work of translation from the 12th to the 1st half of the 14th century, was “largely performed by the Tibbonides, a family of Andalusian Jews who had established themselves at Lunel.” The translation wave consolidated in the next century with the foundation of the *Escuela de Traductores* in Toledo, by Alfonso X “*El Sabio*,” and the support Federico II granted to translators in the court of Naples, and played a crucial role connecting the different traditions of thought and scholasticisms. Grice-Hutchinson, *Early Economic Thought in Spain 1177-1740.*, p. 73.

¹⁷⁷ That is the case also of Art and Literature. Vernet, "Lo Que Europa Debe Al Islam De España.", p. 399.

philosophy.¹⁷⁸ Nevertheless, there is not much work comparing the common stances of Christian and Islamic scholasticism on economic issues. Still, it is worth mentioning the recent works by Ghazanfar, particularly his article on the parallels and links between the works of S. Thomas Aquinas and al-Ghazali.¹⁷⁹ It offers some evidence about how Aquinas' synthesis drew indeed from al-Ghazali's speculations; Aquinas also had access to different Arabic sources through his masters, Albertus Magnus and Raymund of Peñafort.¹⁸⁰ A whole record of scholars, travelling and studying all over the Mediterranean, offers evidence for this, as I suggested in the first chapter.

The transmission of ideas usually follows a line parallel to those intercultural contacts, exchanges, and borrowings that take place within other levels of society. The study of a broader range of exchanges may illustrate the level of interconnection between the societies or communities being studied. The authors we are studying developed their works within religious communities that had maintained intensive contacts through the centuries in the Mediterranean and, moreover that had coexisted in certain regions during prolonged periods, as in the Near East, and the Iberian and Italic peninsulas. Invasions, conquests, commerce and common enterprises led to the existence of similar institutions and practices, in particular concerning commercial and financial activities.¹⁸¹ That was reflected in the existence of common contractual forms as mentioned, but also in the development of some similar institutions. Indeed, Murat Çizakça suggests that the Franciscan monks created the *Monti di Pietà* (in the second half of the 13th century) following the example of the Muslim *waqf*, charitable foundations that they came to know through their stays in the Middle East during

¹⁷⁸ See mentioned inventory by Vernet. Some impacting cases as Servetus discovery of the pulmonary circulation of blood and Copernicus theories are traced back in treatises of Arab scholars. Ibid., pp. 386 & 318. An extensive recount of the Arab influence in Copernicus theories can also be found in Saliba, George Saliba, "Rethinking the Roots of Modern Science. Arabic Manuscripts in European Libraries," (Washington: Center for Contemporary Arab Studies, 1999)..

¹⁷⁹ Ghazanfar, "The Economic Thought of Abu Hamid Al-Ghazali and St. Thomas Aquinas: Some Comparative Parallels and Links."; published again in a chapter of his book of 2003.

¹⁸⁰ Ibid.. As Albertus Magnus, (Padua, 1193-1280), Raymund of Peñafort, (Catalonia, 1180-1278), is indeed another crucial figure in the connection of these traditions. He was chaplain of Gregorio IX, and the responsible for the writing of the Gregorian Decretales, promulgated in 1234, the same ones Azpilcueta uses for his dissertation on usury. Muñoz de Juana, "Moral Y Economía En La Obra De Martín De Azpilcueta.", 1998, p. 73. Aquinas wrote his *Summa contra gentiles* under his request.

¹⁸¹ At the linguistic level, a simple but quite illustrative signal of the continuous economic contact through merchants is the use of different derivations of the Arabic coin *dinar*, to denominate money, in all parts of the Mediterranean during the twelfth century: "*deniers* in France; *denari* in Italy; *dineros* in Spain; *dinheros* in Portugal; (...) *denars* in Hungary." Spufford, "Handbook of Medieval Exchange.", p. xix.

the Crusades.¹⁸² Another good example of these common institutions is the office of *hisbah* and the figure of the market supervisor; *shoter* in the Hebrew tradition, *muhtasib* in the Islamic one, and *almotacen* in the “Re-conquered” Christian Spain. Gerald J. Blidstein has shown how the figure of the *muhtasib* had its precedents in the Hebrew tradition of the *shoter*.¹⁸³ And Thomas F. Glick has examined how this tradition, as well as the literature on *hisba* manuals, had continuity on the Iberian Peninsula.¹⁸⁴ The Andalusian manuals of *hisba* as well as the legislation on economic issues Muslim jurists developed in al-Andalus, particularly that of currency changes (*ṣarf*) were crucial transmitters to the Christian kingdoms of the Iberian peninsula of the Islamic institutions of the market, the Islamic legal fictions and commercial contracts, as well as the principles and values of the “monetary *sunnah*.”¹⁸⁵ In the literature that developed around market supervision (as happened with the “mirrors for princes”), which spread from the Persian tradition to the Islamic world and reached Christianity, there were similar genres in the literature and analogous conceptions in the three cultural traditions as well. Indeed, among the Arabic books collected for the Royal Library of El Escorial in the 16th century, there are also several books about the good governance and administration of kingdoms.¹⁸⁶ A section of the historiography dealing with the “mirrors for princes” has examined the continuity of this genre in Europe.¹⁸⁷ Truman has studied “*de regimine principum*” and similar traditions in Spanish treatises on government, society and religion at the time of Phillip II.¹⁸⁸ He points out how the term spread around

¹⁸² “Crosscultural Borrowing and Comparative Evolution of Institutions between Islamic World and the West,” *Relazione Economiche tra Europa e Mondo Islamico. Secc. XIII-XVIII*, XXXVIII Settimana di Studi Internazionale di Storia Economica “F. Datini”, 1-5 May 2006, Prato, 2007.

¹⁸³ Blidstein, “Muhtasib and Shoter.”, pp. 37-44.

¹⁸⁴ Glick, “New Perspectives of the Hisba and Its Hispanic Derivatives.”. For further investigations see: Chalmeta Gendró, “El “Señor Del Zoco” En España : Edades Media Y Moderna : Contribución Al Estudio De La Historia Del Mercado.”; and Glick, “Muhtasib and Mustasaf: A Case Study of Institutional Diffusion.”.

¹⁸⁵ Another illustrating example is the figure of Ibn Asim (1359-1426), chief *kadi* of Granada and influential jurist, whose best known treatise, the *Tuhfa* is composed of 23 chapters dedicated to the subject of sale, 8 to contracts of rent and hire, 4 to partnerships, companies and trusts and two to loans, deposits and guarantees. He was dealing with the same kind of problematic his Christian colleagues would do decades later, money-changing, ‘transactions’ involving the exchange of precious metals, and credit deals. See Grice-Hutchinson, *Early Economic Thought in Spain 1177-1740.*, p. 27.

¹⁸⁶ According to Alonso del Castillo’s recount in 1584 of the books collected from the Real Chapel of Granada: “En la Capilla Real desta cibdad ay tres libros arábigos que tratan de la gobernación de los principes y reyes.” Also among the 3000-4000 books taken from the library of the Moroccan king, Mullay Zaydan, there are several about “*buen gobierno*” (good governance). Justel Calabozo, “La Real Biblioteca De El Escorial Y Sus Manuscritos Árabes: Sinopsis Histórico-Descriptiva.”, pp. 164-65, 174.

¹⁸⁷ Even there are some investigations comparing the Prince of Machiaveli with the “Handbooks of princes” literature. See Gilbert (1938), cited by Truman, “Spanish Treatises on Government, Society and Religion in the Time of Philip II: The ‘De Regimine Principum’ and Associated Traditions.”, p. 12.

¹⁸⁸ The political character in these books of the secular ruler, as a Christian ministry, seems to me quite close to that of the Califa in Islamic political thought: “The secular ruler exercises real power, but power whose character is that of a Christian ministry. This regale ministerium is a matter of governing the People of God (Jonas’ usual

Europe in the course of the 12th and 13th centuries.¹⁸⁹ García Lizada also offered an appraisal of this literature in relation to the economic thought developed in al-Andalus.¹⁹⁰ Another interesting common genre is that of the handbooks for merchants both in the Iberian and Italian tradition.

Contacts did not only take place during the periods of Muslim dominance in al-Andalus and Sicily, or through commercial exchanges between Italian cities and the Near East. By the time Christian kingdoms had already recovered those territories or established their dominance, conversions and assimilation of previous institutions and communities were common. The expulsion or diaspora of previous religious communities was not the only choice or took place after a long period of time that allowed a high level of assimilation of the institutions, legal structures, science and principles of those communities. Moreover, there were numerous cases where *conversos* maintained their professional and social status in spite of working in the name of new dogmas;¹⁹¹ and some religious orders, such as the Mercedarios, Dominicans, and Franciscans, and religious minorities, such as the Copts or families of Jews, maintained their role of intermediaries between regions, as diplomats, translators or commercial and financial dealers, for centuries.¹⁹²

The evidence available at this time – including the examination of university libraries, manuscript catalogues, cultural exchanges, the socio-political context and records of Azpilcueta's library – shows that there is little probability that Azpilcueta could have read al-Maqrīzī's treatise. Overall, from the analysis of the work, lives and conceptual frameworks of Azpilcueta and al-Maqrīzī we can conclude that: First, the two authors came from connected

term of the subjects of the king) according to justice and preserving it in peace. In so doing, the secular ruler cooperates, in an ultimately subordinate role, with the Church as it discharges its salvific function" (Truman, 1999, p. 15), as can be observe in Sedulius Scotus's sentence: "What are the rulers of a Christian people but ministers of the Almighty?" (...) "Again the king is seen as primarily as God's representative on earth, responsible to him for faithfully discharging the duty and ministry of caring for God's people by upholding justice;" Ibid., p. 16.

¹⁸⁹ Gilbert (1938) & Grabes (1982, *speculum* titles); Between 800 – 1700 thousands of books and texts telling the king how to conduct himself "so that he might be 'clear in his great office'" (Gilbert, 1938, p. 4) - The term 'mirrors of princes' established itself in the course of the twelfth and thirteenth centuries. Both quoted in Ibid., p. 12.

¹⁹⁰ Antonio García Lizana, "El Pensamiento Económico Andalusi," in *Economía Y Economistas Españoles: De Los Orígenes Al Mercantilismo*, ed. Enrique Fuentes Quintana (Barcelona: Galaxia Gutenberg, 1999), pp. 57-58.

¹⁹¹ "these New Christians did not desert their old professions but carried on their work as counselors, doctors, ambassadors, tax-collectors, bankers, shopkeepers and artisans. In due course the descendants of rabbis became monks and friars, bishops and cardinals and even inquisitors" Grice-Hutchinson also mentions the case of Don Alvar García de Santa María, born Salomón Halevi, once chief of rabbi of Burgos and later bishop of that city. Grice-Hutchinson, *Early Economic Thought in Spain 1177-1740*, p. 39.

¹⁹² García-Arenal and Wiegers, *Entre El Islam Y Occidente : Vida De Samuel Pallache, Judío De Fez*..

regions and traditions of thought; they used similar sources and faced analogous problems; Second, both grasped the quantity element of monetary inflation but their positions diverged notably, not only in the different degree of formulation and complexity, but also in the general approach of the work.

PART II - CONCLUSIONS: FROM SMALL TO BIG CHANGE INFLATION: SOME CONCEPTUAL CHANGES IN UNDERSTANDING MONEY

The study of the emergence of the quantity theory of money has been related to economic historiography about the so-called revolution of prices in the 16th century, which involved examining how contemporaries understood the economic changes and increases of prices at the time. Although that historiography has led to some misconceptions, it also created a fruitful crossroads between economic history and the history of economic thought, traversed by various authors from Hamilton to Cipolla and de Roover to other more recent writers. In 2003, Sargent and Velde published an impressive work committed to disclosing the historical evolution of the problem of small change and the discovery of the “standard formula” in monetary management, which entailed as well the understanding of the quantity theory of money.¹⁹³ According to Cipolla, despite the fact that this monetary knowledge was a result of a learning curve spanning centuries, it materialized as a coherent body of monetary measures, in the form of the “standard formula” of monetary policy, only at the beginning of the nineteenth century.¹⁹⁴ The “standard formula” is conceived as the set of monetary premises on which any sound system of fractional money should be based, which is a combination of the following: the issuing of small coins with a commodity value lower than their monetary value; the limitation of the quantity of those small coins in circulation; and the provision of convertibility with unit money.¹⁹⁵ The first premise implies making the distinction between commodity (or intrinsic) value and monetary value (price in terms of units of account or in other coins), but more than that, to issuing token coins, something that, with limited exceptions, was not frequent during the Middle Ages.¹⁹⁶ It is based on the idea that it is impossible to keep together coins of three different metallic denominations at their market value, since it means allowing them to depend on the fluctuations and relative values of the three metals. As it happened during most of the late Middle Ages, to allow them to do so

¹⁹³ Sargent and Velde, *The Big Problem of Small Change*..

¹⁹⁴ In England it was apply in 1816 and in the United States in 1853. See E. Cannan (1929), A. E. Monroe (1923), and A. E. Whittlesey (1948), quoted by Cipolla, *Money, Prices, and Civilization in the Mediterranean World, Fifth to Seventeenth Century*., p. 27.

¹⁹⁵ ———, "The Big Problem of the Petty Coins."p. 27.

¹⁹⁶ The first premise pretends to prevent for the accumulation and trade of petty coins for the shake of their metal content, and it is a main requirement for fractionary and then fiduciary systems; the second aspect pretends to avoid depreciations and fluctuations in the value of coins and assumes the concurrence of the quantity theory of money; and the third one intends to warrant the stability and legitimacy of the fractionary system.

meant the disappearance of one or the other as a result of the concurrence of Gresham's law and speculations with their values. The second premise of the so-called standard formula is based on the basic assumption of the quantity theory of money that the quantity of coins in circulation affects prices, particularly in the case of petty coins – those coins which are used in daily markets, are easier to manipulate and to increase in quantity.

Following Cipolla, Sargent and Velde rightly mention how the growing needs of trade led to the introduction of large denominations of coins and a succession of problems in the multimetallic monetary systems that included “correlations between the quantity of coins and the price level, suggesting a ‘quantity theory’”.¹⁹⁷ However, they date the origins and implementation of the “standard formula” to the writings of Henry Slingsby in 1661 and the mechanization of minting in the sixteenth century. Technological and theoretical limitations are considered to have produced such a delay in the development of proper mechanisms for monetary management. However, this study traced in the late medieval to the early modern period, the development of some key conceptual changes for understanding money and its role in the economy, as well as some experiments with how to manage it, which pointed to elements of that formula or attempts to introduce such control of the whole monetary system.

About the commodity character of money, we saw how all through the Middle Ages most scholastic authors recognized the metallic aspect of money. Moreover, the critiques against debasement of money that appeared within both the Christian and Islamic framework emphasized the need to respect its metallic content as a main source of its value and legitimacy. The general perception during medieval times was that the value of precious metals, gold and silver, or, moreover, their relative exchange rate, was basically stable, which justified them being used as mediums of exchange. We saw that this conception contributed to creating a monetary system based on a conception of money that finally related to its metallic, almost constant, value. Islamic jurisprudence based its legislation about monetary and fiscal transactions on the idea that the rates between the gold and silver monies of account could be fixed. However, the introduction of new instruments of exchange, copper, and the concurrence of unusual flows of metals, first copper and then silver and gold, both from Europe and America, broke with these conceptions, revealing that the value of money changed in respect to the fluctuations of supply and demand and, particularly, in respect to other goods, in nominal but also in real terms. Those economic changes showed the need to

¹⁹⁷ Sargent and Velde, *The Big Problem of Small Change.*, p. 13.

control the amount of metal in circulation if the structure of prices was to be kept stable. In the late Middle Ages, scholastic authors and jurists from Aquinas and Cajetan to Antonido di Firenze already pointed to the role supply played in defining the value of money. Oresme would take into consideration the fact that the market value could vary independently of the face value of money, and hence, a certain adjustment was needed.

We also saw how the role of the quantity of money in determining its value became evident in relation to the problem of small change and, particularly, in cases of small change inflation, where sudden significant flows of base metals altered the structure of prices. Cases of petty-coin inflation in Egypt and Florence gave rise to monetary explanations that already took the quantity element into consideration. In Florence, to counteract the overflow of *quattrini* and restore the value of those copper petty coins in relation to the gold currency, certain amounts of them were taken out of circulation and melted down. In Egypt, copper coins were also taken out of circulation and, moreover, al-Maqrīzī highlighted the role quantity of copper played as well in inflating prices and diminishing the purchasing power of money. In this way, the Egyptian scholar perceived the causal relation underlying the quantity theory of money and, furthermore, linked the quantity of money in circulation with the purchasing power of rents. He did not however conceptualize theoretically the consequences that this had for the conception of the value of money. In addition to this, al-Maqrīzī's monetary proposals to restore the stability of the monetary system did not take into consideration that if the value of gold, silver and copper coins were defined in terms of their intrinsic and minting cost, the monetary system would have to handle the fluctuations that the value of these metals experienced in the markets. Al-Maqrīzī attached the value of money to its metal content but he did not consider in his proposals that the value of gold or silver or even of copper could change because of the law of supply and demand.

Al-Maqrīzī also did not consider the possibility of setting the value of small change below its intrinsic value, which as Cipolla commented is one condition of the standard formula for monetary management and of the stability of any fiduciary system. Having said that, his monetary proposal does attempt to control the amount of petty coins in circulation and their convertibility to other currencies in the monetary system. It attempts to introduce a certain form of monetary control in line with the standard formula.

It was the context provided by the so-called price revolutions of the 16th century that finally brought up the link between the quantity of metal, its value and the value of other

commodities, as perceived in works by Azpilcueta and Bodin, who put forward the earliest formulations of the quantity theory of money. Azpilcueta's theoretical development was to link the role of money as a commodity, whose value changed in metal markets according to the supply of metals and the demand for currency, with the consequent role that money, as currency, played as a measure of value, whose value determines other prices in the market. In this way, the existence of particularly voluminous inflows of metals at specific times, either in the form of base metals and small coin invasions, or precious metals and silver and gold coins, revealed the difficulty which a commodity-money caused for the stability of the whole monetary system.

Both the lack of money in circulation and the distinction between token money and standard money were introduced as qualifications to the dominant "naïve commodity concept" and led to a move away from previous monetary systems of multiple metallic denominations to monetary systems based on a modern fractionary currency.¹⁹⁸

Thus, following on from previous research about the monetary thought of scholasticism, and in particular on the monetary ideas of the School of Salamanca, my work completes the picture with a study of monetary proposals appearing in other parts of the Mediterranean, in relation to cases of small change inflation. The study confirms that, even if appearing explicitly for the first time in Azpilcueta's *Resolutorio*, the emergence of the quantity theory of money was the result of a long process of development.

Parallel developments in monetary thinking in different parts of the Mediterranean can (as Urvoy argued in the case of Gresham's law¹⁹⁹) be seen as a result of facing similar problems in the management of money; a consequence of, first, the new economic context of expansive monetary transactions and changes with money that disclosed how the value of money was exposed to changes in markets; and second, the revolution of prices that their economies experienced, which led these scholars (in contact with the economic reality of the time thanks to their respective professional positions), to connect the new phenomenon of the arrival of metals – silver and gold from America in the case of Spain and France, and copper from Europe for the Mamlūk empire – with the general inflation of merchandise and labour. In addition to this, however, it was also a result of a shared tradition of observing and

¹⁹⁸ Usher, *Early History of Deposit Banking in Mediterranean Europe.*, p. 232.

¹⁹⁹ "Il y a même des parallélismes troublants qui, ne pouvant s'expliquer par des contacts livresques, doivent être dus à la nécessité de rendre compte, dans les deux civilisations, de problèmes similaires." Urvoy, "Les Vues D'averroès Sur La Monnaie Comme Intermediaires Entre Celles D'aristote Et Celles Des Averroïstes Latins.", p. 202.

speculating about money and markets, rooted in the classical and religious systems of the Mediterranean.

Summary of conceptual developments in Islamic and Christian scholars (10 – 16th cc.)	
<u>“Naïve” commodity-theory:</u> Money as a metal but a special kind of commodity whose intrinsic value “tends” to be stable (Intrinsic value of money not subject to changes in the markets)	<ul style="list-style-type: none"> - Medieval Islamic and Christian scholars - Malestroit, Covarrubias...
<u>Legist-metalist conception:</u> Money as a unit of measure whose face value is related to its intrinsic value and as such is backed by law (Intrinsic value matches face value by law)	<ul style="list-style-type: none"> - Islamic jurisprudence and scholastics - Roman and Canon law - Christian 13-14th-century scholastics
<u>Commodity-theory of money:</u> Money as a unit of measure whose intrinsic value fluctuates in the markets (Intrinsic value of money subject to the law of supply and demand)	<ul style="list-style-type: none"> - Some Christian scholastics, with qualifications - Azpilcueta and the School of Salamanca - Bodin
<u>Inflationary effect of monetary devaluations/ debasement:</u> Impact on inflation of changes in the face/ intrinsic value of money	<ul style="list-style-type: none"> - Dubois, Durant the Younger - Malestroit, Covarrubias...
<u>Quantity dimension of monetary depreciation:</u> Money as a unit of measure whose face value fluctuates in the markets (Impact of the quantity of metal in the face value of money)	<ul style="list-style-type: none"> - Concrete cases of monetary management (<i>fulūs</i> in Cairo, <i>quattrini</i> in Florence) - Azpilcueta and the School of Salamanca
<u>Quantity dimension of monetary inflation:</u> Impact of the quantity of metal on inflation	<ul style="list-style-type: none"> - Concrete cases of monetary management (<i>fulūs</i> in Cairo, Castile...) - Al-Maqrīzī, Azpilcueta, Bodin, de Soto...
<u>Relationship between the value of money /other commodities:</u> Impact of inflation on the value of money as unit of measure (changes in the purchasing power of money)	<ul style="list-style-type: none"> - Aquinas, Terreni, Odonis, Buridan, Oresme - Ibn Taimīyah, Al-Maqrīzī - Azpilcueta and School of Salamanca - Bodin...
<u>Proto-quantity theory of money:</u> Money as a commodity and unit of measure whose purchasing power fluctuates in markets (Impact of the quantity of metal in demand and inflation – direct element quantity-prices)	<ul style="list-style-type: none"> - Al-Maqrīzī - Bodin
<u>Quantity theory of money:</u> Money as a commodity and unit of measure whose purchasing power fluctuates in markets (Impact of the quantity of metal in the purchasing power of money – proportionality element quantity-prices)	<ul style="list-style-type: none"> - Azpilcueta, de Soto...

CONCLUSIONS

Whether as a consequence of participating in a shared commentary tradition on Classical thought, of religious systems based on related sacred texts, or as a result of using common instruments and coins in trade and facing similar problems with metal flows and debasement, the first corollary of this work is that it does indeed make sense to bring together cases and authors from different parts of the Mediterranean. Those cases and authors revealed the presence of common values and approaches when dealing with and trying to understand shared monetary problems. The Mediterranean existed during the period as a space or world unto itself, not only in respect of monetary and commercial circuits but also regarding monetary conceptions.

As noted in the first chapter, certain conceptions related to money (the origins of money in trade, its function as an equivalent of exchange, its role as part of the legal system that guaranteed justice, as well as the critique of greed and usury), became so intertwined and widespread that they cannot be taken but as constituting a common tradition, indisputably Aristotelian, but also Mediterranean.

Reviewing those conceptions in the first chapter, I confirmed, for the case of monetary issues, Kitter's thesis about the transmission of Aristotelian economic conceptions to the Islamic world via Bryson's *Oikonomiké*. Moreover, I showed how Bryson's text contributed to the transmission of an integrated version of Aristotle's texts on money to the Islamic world, combining both the idea of money as metal used as a medium of exchange and of money as a unit of measure defined as such by social consensus or agreement.

In the Islamic context, through Bryson's text and the *Ethics*, the Aristotelian explanation of the "social" origins of money (as metal, serving the needs of trade) appeared in most Islamic authors writing on money in the medieval period. A second aspect to highlight in this transmission was that commentators on Aristotle's *Ethics* assimilated the conception of money as *nomos* and adapted it to the Islamic context. The concept of *nomos* was interpreted as meaning Islamic or divine law, while the agreement or convention that led to using money as unit of measure was seen as the *ijma'*, the consensus of the Muslim community. Money was then conceived as the third level in justice administration, after God and the judge. A

third point in that transmission is that no Islamic author commented on the idea stated in the *Ethics* that, as part of a convention or law, money (or its value) might be changed. Quite the opposite, with the help of Prof. Harvey, I verified how Ibn Rushd, in his commentary on the *Ethics* consciously avoided mentioning that section, while later Ibn Khaldūn transformed Aristotle's idea that the value of metals "tends" to be stable into the idea that the value of metals is "isolated" from any fluctuation.

As to Latin commentators, at the time they were writing, not only did they have access to both Aristotle's *Politics* and the *Ethics* (translated into Latin with an interval of 23 years), and previous Greek commentaries on the latter, as well as versions of Bryson's text, but they also had access to Ibn Rushd's *Middle Commentary* on the *Ethics* (translated into Latin about 7 years earlier than the *Ethics*). As a result, they reproduced and commented on the whole set of Aristotelian monetary conceptions in both texts, with some nuances and qualifications. In this way, the idea that the use of money originated in the needs of trade, as metal that was later stamped, became a common theme among Latin scholastics, as it had earlier among Islamic scholars. The interpretation of *nomos* was also understood as "law," and it cristalized as such from Aquinas to Odonis and Oresme, like Langholm already examined. Although they did generally comment on the Aristotelian sentence that the value of money fluctuates, as with any other commodity, Albert the Great and Aquinas also deduced from Aristotle's conception of money (as a guarantee for future transactions) the need for it to be stable. Hence, while Albert stated that money, as a measure, "ought to be firm (*certa*)," Aquinas said it "ought to be so established as to retain the same value more permanently." They thus expressed a vision of the monetary structure that, as in the Islamic scholars, did not fully acknowledge the possible impacts in the system of having a fluctuating coin. Albert had particularly emphasized that the mark stamped on a coin was a guarantee of its "purity of metal," which, with the influence of Roman law, contributed to estimate the *bonitas intrinseca* or intrinsic value of the coin as a key parameter to value it. Experiences with currency debasement, led later authors to link the law that established the value of money to its material and weight. Money came to be regulated by law and fixed in metallic terms within a discourse that took form gradually from Aquinas to Oresme.

Ibn Rushd's reading could have played a role in the interpretation of Aristotle's *nomos* as law, since scholastic authors used his *Middle Commentary* on Aristotle's *Ethics* as a supplementary text to understand Aristotle. That text or, at least, the Latin translation of it (as it is available to us) rendered *nomos* as law. In addition to what is already known about

Albert the Great, Aquinas and later commentators of the late 13th century using Ibn Rushd's texts, I indicated how certain phrases in Odonis and Oresme provide further evidence for the thesis of Ibn Rushd as intermediary.

The thesis also uncovered a series of additional common themes between Islamic and Christian scholars regarding monetary issues, including the condemnation of hoarding and the need to respect weight and measures in economic but, particularly, in monetary transactions.

Hence, from the analysis of the texts and authors examined, I concluded that more than a "nominalist" conception of money, as traditionally considered, the monetary perception that dominated the Mediterranean during the late medieval ages was closer to what Urvoy termed a "naïve-commodity theory of money." Most of the authors developed similar or parallel conceptions of a monetary system where the nature and value of the currency is related to the metal it is made of but whose value is fixed (or relatively stable) and guaranteed by law. It was a commodity theory of money in the sense that the metallic character of money was acknowledged. It was naïve in the sense that all the implications that having a currency that circulated and was traded, either as bullion or coin, had for its value and for the stability of the whole monetary system were not fully considered. That was particularly true in the case of the Islamic authors, who ignored or denied the possibility that the value of money could fluctuate, while Christian scholars and jurists, although only gradually and as a minor factor, acknowledged the role which metal supply plays in defining the value of a currency.

That inherent contradiction was covered by an appeal to the law, either divine law, positive law or the consensus of the community, to respect and guarantee the value of money, which could, indeed, be ignored or changed by monetary authorities for their own profit or for covering the increasing fiscal needs of the state. Reactions against the debasement of money emerged in different authors who emphasised the need to respect that law. In the second chapter, I also pointed the existence of some common themes in the arguments against debasement of Islamic and Christian scholars. While in some Islamic scholars critiques against debasement arose due to it breaking the law, or the law of money, Christian scholars focused on the fact that changes in the value of currency damaged the public good (*utilitas publica* or *bien comun*). Islamic scholars had, nevertheless, also used the argument of the public welfare (*maṣlaḥah al-‘āmmah*) being attacked by the intervention of the ruler in monetary affairs.

In those cases, the blame was, nevertheless, placed in the political interference with coinage and not on market fluctuations. Moreover, the link between changes in the intrinsic or nominal value of the coin and the consequent inflation was scarcely observed. Both Islamic and Christian scholars pointed to the effects debasement had on ruining people's wealth, but few of them, only Pierre Dubois and William Durant the Younger, saw this as a result of the consequent inflation.

In line with Spufford's arguments, I examined also how there was a complete connection between the defense of a stable monetary unit (gold and silver) and the interests of landlords, the nobility and the Church, and also, with some qualifications, merchants. The creation of central monetary systems based on a stable fixed currency was directly linked to the agreements achieved between local economic elites and political powers. Resistance and complaints emerged in France, Spain, Tunisia, Egypt, Syria and Iraq, among the clergy, nobility and officials when the ruler debased the silver coin, which was the coin in which they received their rents. In the case of merchants, their position depended on their sphere of activity and the coins used to buy or sell products. Exporters benefited from the devaluation of the internal currency, which made their products cheaper, while they needed a strong coin to make international payments, as the case of Florence showed. They, nevertheless, needed a certain level of stability to guarantee exchanges in the long run.

Islamic jurisprudence set the canonical monetary standards or monies of reference, according to specific weights and alloys of precious metals. These regulations were violated by some sections of the administration when currency was debased. The convention that initiated the use of money was considered to be that of the original religious community and hence, over time took on a divine character, part of the idealization of the early Islamic period. Christian scholars also granted a divine character to the coin when its value had to be defended. Another principle in Islamic jurisprudence, which fourteenth-century scholars also attempted to introduce, is the definition of a fixed exchange rate between gold and silver coins. This exchange rate was perhaps initially designed to sustain a certain territorial equilibrium within the early Islamic empire, where gold and silver circulated in different, separated, regions. However, my opinion is that, given that coins of different denominations were used within different socio-economic circuits in Mediterranean societies, the fixing of the exchange rate of gold and silver coins was a way of neutralizing the external distortions that could affect any of these spheres of circulation when changes in the supply of metals altered their value. Hence, it was a way of maintaining a certain internal equilibrium of the whole

monetary and also the socioeconomic system, or at least between the gold and silver spheres of circulation.

There was, however, a gap in Islamic jurisprudence concerning the regulation of copper money, *fulūs*, whose circulation was controversial. The exchange rate of petty coins, in relation to the noble coins, gold and silver, was not so strictly regulated. Fourteenth-century Christian scholars made no attempt to regulate it either. Only two such authors seem to have been aware of problems stemming from not controlling this low-value money: Abbeville in the 12th century, who warned merely of the possibilities of fraud when bad and good money circulated at the same time, and Oresme. Oresme, nevertheless, claimed that if, given scarcity of money, a coin had to be mixed with another lower metal, in order to put more coins in circulation, it would be better if the coin to be debased was not the gold coin but, among the coins in circulation, that of lesser value.

The expansion of the use of unregulated petty coins, as part of the process of the monetization of economies, posed some important challenges and revealed key implications for the conceptualisation of money, its quantitative definition and the emergence of the quantity theory of money - one of the main abstract monetary relations in the attempt to control the monetary system.

The sphere of copper circulation, the small change that defined prices in small transactions, would be the one that, at the end of the 14th century, suffered the effects of the bullion famine. As we saw in the third chapter, large flows of copper and low-value coins invaded the cities in the context of silver shortages. The amount of small change increased and its value depreciated considerably, while the value of the gold coin remained protected by the monetary authorities. The depreciation of small change, the petty coins that the majority of the population used for small transactions (and more extensively due to the increasing monetization of economic transactions) was contested with popular revolts. This was the case in both Florence and Egypt, where, after the invasion of small coins, protests rose from sectors of the population and of the administration, which introduced similar attempts to put those small coins out of circulation. At the end of the 14th century, in Florence the population protested the loss in the purchasing power of wages, defined in the copper coin, the *quattrino*. In Cairo, at the beginning of the 15th century, protests also occurred due to an inflation crisis and al-Maqrīzī, *muḥtasib* or market supervisor of the city, attacked the excessive use of petty

coins and advocated the return to the bi-metallic gold and silver system, opting finally for regulating small change within the monetary system.

The quantity dimension of al-Maqrīzī's proposal has not been fully recognized by the literature. However the importance of this aspect is confirmed by my analysis of his writings and context in the fourth chapter. He spoke in terms of the quantity of coins and metal in circulation, blamed the excessive amounts of copper coins for the consequent inflation and considered the effects this had on the purchasing power of rents. Moreover, corroborating Meloy's thesis, through an analysis of the political and economic context of the time, I showed that al-Maqrīzī's two treatises on money form a comprehensive set of proposals for monetary reform, reflecting a pattern of continuity in his monetary thought, even while adapting to successive monetary and political events. In the first treaty, written in 1405, al-Maqrīzī observed the quantity dimension of the monetary inflation at the beginning of the 15th century, blaming the increase in the circulation of copper coins that certain sections of the Mamlūk administration had favored. In the second treatise, composed around 1415, he praised the new administration that had re-introduced the silver coin while, given the permanence of the problem of copper circulating in excess, suggested that the value of the small copper coin be pegged to the gold and silver coins according to their cost of production (mining and taxes). This was a completely new element in Islamic jurisprudence concerning monetary management; al-Maqrīzī not only defended the Islamic canonical monetary system that regulated the relationship between gold and silver coins, but he also attempted to include copper in that fixed system. With his new proposals, al-Maqrīzī sought if not to stop completely the circulation of copper coins, given that this was a recurrent phenomenon that seemed difficult to avoid, but at least to keep those small coins under control. For those reasons, he proposed to set the value of the copper coin according to its intrinsic value and its exchange rate with the gold and silver currencies. In his view, the general value of all transactions, including small daily transactions, would remain stable in this way. His was an unusual attempt to keep stable not only gold and silver, but also copper (hence the three currency circuits) in order to maintain the stability of the whole socioeconomic order, or, in other words, keep social peace.

In relation to the development of monetary thinking, the difference between al-Maqrīzī's proposals, to end the problem of *fulūs*, and those presented by the temporarily popular government in Florence, in the case of the *quattrini*, is that the latter tried to put low-value coins out of circulation in order to increase their value in respect to the gold currency,

while al-Maqrīzī attempted to reduce the amount of small coins to end inflation and restore the purchasing power of rents.

To appraise the relevance of al-Maqrīzī's proposals, in the fifth chapter I revisited early formulations of the quantity theory of money in the 16th century. This was done by laying out the series of conceptual steps that led to the identification of the relationship between amount of money and prices: first, to accept the commodity character of money; second, to distinguish between the face and intrinsic value of money; third, to acknowledge the fluctuating character of its intrinsic value depending on the law of supply and demand in markets; fourth, to see the relationship between amount of metal/money and inflation; and fifth, to see the fluctuating character of the purchasing power of money depending on the law of supply and demand in markets (quantity theory of money, which links money and commodities value in an inverse relationship). Thus, based on those elements, I examined the differences between al-Maqrīzī and Azpilcueta and between the analysis of the quantity dimension of money in cases of small change and “big” change inflation.

It was the context of the so-called price revolutions of the 16th century that the link between quantity of metal, its value and the value of other goods was first identified in the works by Azpilcueta and Bodin, who put forward the earliest formulations of the quantity theory of money. Azpilcueta's conceptual development was to link the role of money as commodity, whose value changed in metal markets according to the supply of metals and the demand for currency, with the consequent role that money, as currency, played as a measure of value, which determines the rest of prices in the markets. Al-Maqrīzī had not related those two aspects, given that he had not recognised or taken into account the impact that fluctuations in the money markets had on its value as legal tender. He merely pointed out the impact that big amounts of metal had on the circulation of money and hence inflation, revealing the quantity dimension of monetary inflation via increases in consumption patterns. Other experiences with small change, as that of late fourteenth-century Florence, had pointed to the impact that big amounts of small change had on decreasing its value in terms of the gold currency. They thus revealed the quantity dimension of monetary depreciation.

In sum, abuses introduced by the practice of debasement revealed the need to attach the value of money to something fixed or stable: the quantity of precious metal. In the commentary tradition of Aristotle, both Islamic and Christian, the convention that determined

the use of money as a unit of measure and made it dependent on the metal was taken as the law, whose role was to grant it stability. However, the existence of particularly voluminous inflows of metals at specific times, either in the form of base metals and small coin invasions, or precious metals, silver and gold coins, revealed the difficulty that commodity-money posed for the stability of the whole monetary system. In this new context, the quantity dimension of monetary inflation emerged both as explanatory factor and as element for monetary management. In Florence that dimension was used to control the value of the coin while the in Cairo it was used to avoid inflation and reequilibrate the system. The School of Salamanca elaborated from that to introduce the quantity dimension in a new vision of money and the economy where the value of the coin and that of other commodities were linked in an inverse relationship set by the quantity of metal in the economy.

Thus, in line with previous research about the monetary thought of scholasticism, and in particular the monetary ideas of the School of Salamanca, this study completes the picture with an analysis of monetary proposals appearing in other parts of the Mediterranean in relation to cases of small change inflation. It confirms that, even if appearing explicitly for the first time in Azpilcueta's *Resolutorio*, the emergence of the quantity theory of money was the result of a long process of development and learning from experiences with multi-metallic money systems and currency transactions, debasement, small coin inflations and finally the so-called revolution of prices. It was also a result of a shared tradition of observing and speculating about money and markets, rooted in the classical and religious heritage of the Mediterranean.

In his foreword to Chafuen's book on late-scholastic economics, Michael Novak compared the perspectives and economic formulations of sixteenth-century scholars with those of British liberals who, centuries later, portrayed themselves "not as revolutionary thinkers, but as synthesizers of the common experience of the ages."²⁰⁰ He further suggested that the School of Salamanca had founded a tradition of "common sense" that would continue until the classical liberal economists of the 18 and 19th centuries. I take Novak's view to mean that some of the ideas about money whose genealogy are traced in this study appear to be not simply the result of a long process of intellectual or scholarly development, but are also the outcome of an inherited understanding of monetary issues that surpassed scholarly activity and permeated different economic and political actors within those societies.

²⁰⁰ Michael Novak, "Foreword," in *Christians for Freedom: Late-Scholastics Economics*, ed. Alejandro Antonio Chafuen (San Francisco: Ignatius Press, 1986)., p. 8.

Thus, the works of the scholars as theoretical constructions were the result of their intellectual and religious traditions, their own experiences and observations on reality and the existence of a reservoir of practical knowledge that their societies had developed over time. Sometimes, as noted for the quantity theory of money, by the time the knowledge of such economic regularities were explicitly defined, they were already latent or implicit in the behaviour that economic actors and administrators had developed over centuries. As a result of this, the role of some of these scholars was merely to point out the relevance of those regularities, or to provide them with an explicit theoretical or abstract formulation.

A corollary of the present research is that the transmission of ideas or texts is completely intertwined with developments taking place in the material reality. Conceptual developments evolve by picking out certain issues and categories from received texts, in order to find answers to questions raised by economic reality. However, those issues and categories are also shaped by that reality such that even if they do not always succeed in explaining it, they are continuously challenged by it.

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APPENDIXES

Appendix I – Table of main authors and texts

Latin Scholars	Texts	Birth date	Death date	Century	Arab Scholars	Texts	Birth date	Death date
				S. IX-X	Qudama b. Ja'far	Kitab al-Kharaj wa Sina'at al-Kitaba	864	932
				S. X-XI	Miskawayh	Kitab adab tahdhib al-akhlaq (Treatise of Ethics)	932	1030
					Ibn Sina (Avicena)	Kitab al-Tadbir (The Book of the household administration)	981	1037
				S. XI	Al-Dimashqī	Kitab al-Ishara ila mahasin al-tijara (Book explaining the benefits of commerce)		
				S. XI-XII	Al-Ghazali (Algazel)	Ihya' al-'Ulum ad-Din (The Revival of the Sciences of Religion)	1058	1111
				S. XII	Ibn Rushd (Averroes)	Middle Commentary on Aristotle's Nicomachean Ethics Commentary on Plato's Republic	1126	1198
Albertus Magnus	2 commentaries on the NE Commentary on the Politics	1193	1280	S. XIII	Nasir al-din at-Tusī	Akhlaq-i-Nasiri (Nasirian ethics)	1201	1274
Thomas Aquinas	Sententia libri Ethicorum (1271) Sentences of Peter Lombard (ca. 1256) <i>De regno</i> (ca. 1266) Commentary on Aristotle's Politics Summa Theologica	1225	1274		Al-Sunamī			
Latin "Averroists"	Commentaries on the Ethics (1271-77) Questions on the Politics in the Bologna collection			S. XIII-XIV	Ibn Taimīyah	Ḥisbah-fi-l-Islam al-Siyasat al-Shariyat fi Islah (Pol. of Isl. Jurisprudence) Majmū Fatāwā Saikh al-Islām (Collection juridical opinions)	1263	1328
Guido Terreni	Commentary on the Ethics, 1313	1265	1342	S. XIV	Ibn Al-Qayyīm		1292	1350
Gerald Odonis	Commentary on the Ethics	1290	1347		Ibn al-Ukhuwwah	Ma'alim al-Qurbah fi Ahkam al-Hisbah (Treatise of Hisbah)	1250	1329
Giles of Rome	Regimine principum				As-Subkī	Kitab muid an-niam wa-mubid an-niqam [The restorer of favours and the restrainer of chastisements]	1327	1370
Nicholas Oresme	Commentary on the Ethics (ca. 1370)	1320	1382		Ibn Khaldūn	Muqaddimah (Introduction to History)	1332	1406
Bernardino di Siena		1380	1444	S. XIV-XV	Al-Maqrīzī	Ighathah Al-Ummah Bi-Kashf Shudūr Al-Uqūd Fi Dhikr Al-Nuqūd	1356	1442
Antonino di Firenze		1389	1459		Ibn Asim		1359	1426
Domingo de Soto		1491	1560	S. XVI				
Martin deAzpilcueta		1492	1586					

Appendix II – Collection of manuals of *Ḥisbah*, handbooks for merchants & mirrors for princes

The following collection lists works dealing with different economic issues within the literature of *ḥisbah* or the institution for the supervision of markets in the Islamic context, *mirror for princes* or political treatises about the administration of state and the behaviour of princes in both Islamic and Christian literature, plus some administrative literature in the Islamic world and handbooks for merchants in both contexts. It does not try to be an exhaustive recount but a tool for further research. When possible date and place of the writings are given, as well as some information about existing editions.¹

A) Manuals of *Ḥisbah*:

1. Yahyā Ibn ‘Umar al-Andalusi, (Al-Andalus, 824/8-901/2) - *Aḥkām al-sūq*²
2. Al-Sarakhsī (9th c.)³
3. Ibn ‘Abd al-Ra’ūf, (10th c.) - *Risāla fī ādāb al-ḥisba wa-l-muḥtasib*⁴
4. Ibn ‘Abdūn, (Seville, 11-12th c.) - *Risāla fī l-qaḍā’ wa-l-ḥisba*⁵

¹ Information for this list comes from various works, among others: Reuben Levy, "Introduction," in *The Ma'alim Al Qurba Fi Ahkam Al-Hisba of Diya' Al-Din Muhammad Ibn Muhammad Al-Qurashi Al-Shafi'i Known as Ibn as-Ukhuwwa* (Cambridge, Eng.: Cambridge University Press, 1938), p. xiii-xvii (using the "short" list from G.-S. Colin and E. Lévi-Provençal (*Un Manuel Hispanique de Hisba*, 1931)); Essid, *A Critique of the Origins of the Islamic Economic Thought*, pp. 123-27; Izzi al-Din, *The Theory and the Practice of Market Law in Medieval Islam. A Study of Kitab Nisab Al-Ihtisab of Umar B. Muhammad Al-Sunami (Fl. 7th-8th/13th-14th Century)*, pp. 28-31; Islahi, *Contributions of Muslim Scholars to Economic Thought and Analysis (11-905 A. H./632-1500 A. D.)*; Islahi, "Economic Concepts of Ibn Taimiyah," p. 195; Akalay, *Histoire De La Pensée Économique En Islam Du 8ème Au 12ème Siècle: Le Marchand Et Le Philosophe*; Constable, *Housing the Stranger in the Mediterranean World: Lodging, Trade, and Travel in Late Antiquity and the Middle Ages*; Grice-Hutchinson, *Early Economic Thought in Spain 1177-1740*; Marjorie Grice-Hutchinson, "Los Economistas Españoles Y La Historia Del Análisis Económico De Schumpeter," *Papeles de economía española* 17 (1983); García Lizana and Calero Secall, "El Significado De Al-Ándalus En El Pensamiento Económico Español," 1999; Truman, "Spanish Treatises on Government, Society and Religion in the Time of Philip II: The 'De Regimine Principum' and Associated Traditions."; Joseph Desomogyi, "Economic Theory in Classical Arabic Literature," *Studies in Islam* 2, no. 1 (1965); Sarton, *Introduction to the History of Science (3 Vols.)*; For a review and classification of medieval Islamic literature on economic issues see: V. Olivia Orozco de la Torre, "Manifestaciones Diversas Del Pensamiento Económico En El Mundo Islámico Medieval," in *Variaciones Sobre La Historia Del Pensamiento Económico Mediterráneo*, ed. Schwartz Pedro (Almería: Caja Rural Intermediterránea. Cajamar, 2006).

² E. García Gómez and B. ‘Umar Yahyâ, "Unas ‘Ordenanzas Del Zoco’ Del Siglo IX: Traducción Del Más Antiguo Antecedente De Los Manuales De Hisba, Por Un Autor Andaluz " *Al-Andalus XXII* (1957); Yahyà b Umar al-Andalusi, *Kitab Al-Nazar Wa-Al-Ahkam Fi Gami Ahwal Al-Suq*, ed. Abi Gafar Ahmad al-Qasri al-Qayrawani (Tunis: al-Sirka al-Tunisiyya li-al-Tawzi, 1975); Yahyà b Umar al-Andalusi, *Kitab Ahkam Al-Suq*, ed. Makki Mahmud Ali (Cairo: Maktabat al-Taqa al-Diniyya, 2004).

³ Lost treatise.

⁴ al-Ra’ūf Ibn ‘Abd and R. Arié, "Traduction Annotée Et Commentée De Hisba D’ibn ‘Abd Al-Ra’ūf Et De ‘Umar Al-Garsifi," *Hespéris-Tamuda I* (1960); Muhammad ibn Ahmad al Tujibi Ibn ‘Abdun, Ahmad ibn ‘Abd Allah ibn ‘Abd al-Ra’uf, and ‘Umar ibn ‘Uthman Jarsifi, *Trois Traités Hispaniques De Hisba Texte Arabe*, trans. Lévi-Provençal Evariste, *His Documents Arabes Inédits Sur La Vie Sociale Et Économique En Occident Musulman Au Moyen Age*, 1. Sér; Publications De L’institut Français D’archéologie Orientale Du Caire. (Cairo: 1955).

5. Al-Ghazālī, (1058 – 1111) - *Ihyā' al-'Ulūm* (sections on *ḥisbah* in the book 14, *Kitab al-halāl wa-l-harām*)⁶
6. Ash-Shayzarī, 'Abdur Raḥmān bin Naṣr, (Syrian, d. 1193) - *Nihāyat al-Rutbah fī Ṭalab al-Ḥisbah* (Book of the supervisor of the market)⁷
7. Al-Saqṭī [Sakati], Abu 'Abd Allah Muḥammad b. Abi Muḥammad (Malaga, 12-13th c.) - *Kitāb fī 'ādāb al-ḥisba*⁸
8. Al-Jawbarī (first half of the 13th c.) - *Kitāb al-mukhtār fī kashf al-asrār*
9. Ibn Bassām, Muḥammad bin Aḥmad (13th c.) - *Nihāyah al-Rutbah fī Ṭalab al-Ḥisbah*⁹
10. Ibn al-Ukhūwwah, Muḥammad bin Muḥammad bin Aḥmad al-Qurashī, (Egypt, 1250/51-1329) - *Ma'ālim al-Qurbah fī Ahkām al-Ḥisbah*¹⁰
11. Al-Sunāmī, 'Umar b. Muḥammad (end 13th c.– beginning 14th c.) - *Niṣāb al-iḥtisāb*¹¹
12. Ibn Taimīyah, (1263-1328) - *Al-Ḥisbah fī al-Islam*¹²
13. Ibn al-Qayyim al-Jawzīyah (Damascus, 1292-1350) - *I'lām al Muwaqqi'in*¹³
14. Ibn Faḍlallāh al-'Umarī (14th c.) - *Masālik al-absār*¹⁴
15. As-Subkī, Taj al-Din 'Abd al-Wahhab ibn 'Ali, (ca. 1327-1370) – *Mu'id al-ni'am wa-mubid al-niqam: al-islah al-siyasi wa-al-idari fī al-dawlah al-'Arabiyyah al-Islamiyyah*¹⁵
16. Ibn Khaldūn, (1332-1406) - *Al-Muqqadimah* (a section on *ḥisba*)¹⁶

⁵ 'Abdun, al-Ra'uf, and Jarsifi, *Trois Traités Hispaniques De Hisba Texte Arabe*.; Ibn 'Abdūn, *Sevilla a Comienzos Del Siglo Xii: El Tratado De Ibn 'Abdūn [Traducción Del Risāla Fī L-Qadā' Wa-L-Hisba (S. V/Xi-Vi/Xii) De Ibn 'Abdūn]*..

⁶ "Book on the licit and the illicit;" See appendix III.

⁷ Mss. in the British Library, the Bibliothèque Égyptienne (Cairo Catalogue, vol. VI, p. 209) and at Gotha, Leipzig, etc. 'Abd al-Rahman ibn Naṣr al-Shayzarī, *Nihāyat Al-Rutbah Fī Talab Al-Hisbah* (Le Caire: 1946).; al-Shayzarī, *The Book of the Islamic Market Inspector: Nihayat Al-Rutba Fi Talab Al-Hisba*..

⁸ Muhammad ibn Abi Muhammad al-Saqati, *Fi Adab Al-Hisbah* (Paris: al-Matba'ah al-Dawliyyah, 1931).; Muhammad ibn Abi Muhammad al-Saqati, *Un Manuel Hispanique De Hisba: Traité D'abu 'Abd Allah Muhammad B. Abi Muhammad as-Saqati De Malaga Sur La Surveillance Des Corporations Et La Répression Des Fraudes En Espagne Musulmane*, ed. G. S. Colin, trans. E. Lévi-Provençal, Publications De L'institut Des Hautes Études Marocaines (Paris: Librairie Ernest Lérout, 1931)..

⁹ Based on al-Shayzarī's treatise. Mss. in the British Library (Or 9588), the Bibliothèque Égyptienne and elsewhere. Muhammad ibn Ahmad al-Muhtasib Ibn Bassam and Husam al Din Samarra'i, *Nihayat Al-Rutbah Fi Talab Al-Hisbah, Li-Ibn Bassam Al-Muhtasib. Haqqaqahu Wa-'Allaqa 'Alayhi Husam Al-Din Al-Samarra'i* (Baghdad: Matba'at al-Ma'arif, 1968).

¹⁰ Mss. in the British Library (Or 6976, dated in 771/1370), the Bodleian Library (Or 315, undated, probably from the 14th century), the Bibliothèque Égyptienne, the Arab Museum in Cairo (copy from 1306/1889, from a copy dated in Rabī' II, 742); Muhammad ibn Muhammad Ibn al-Ukhūwah, *Ma'Alim Al-Qurbah Fi Ahkam Al-Hisbah* (1968).; Ibn al-Ukhūwah, *The Ma'alim Al Qurba Fi Ahkam Al-Hisba of Diya' Al-Din Muhammad Ibn Muhammad Al-Qurashi Al-Shafi'i Known as Ibn as-Ukhūwwa*..

¹¹ Izzi al-Din, *The Theory and the Practice of Market Law in Medieval Islam. A Study of Kitab Nisab Al-Ihtisab of Umar B. Muhammad Al-Sunami (Fl. 7th-8th/13th-14th Century)*.; Mss. In the Library of the India Office and elsewhere.

¹² See appendix III.

¹³ Muhammad ibn Abi Bakr Ibn Qayyim al Jawziyah, *I'Lam Al-Muwaqqi'in 'an Rabb Al-'Alamin*, ed. al Wakil Abd al Rahman (Cairo: Dar al-kutub al-haditha, 1969)..

¹⁴ Manual of *ḥisbah*?. Shāfi'ī.

¹⁵ al-Subki, *Kitab Mu'Id an-Ni'Am Wa-Mubid an-Niqam [the Restorer of Favours and the Restraint of Chastisements]*.; Taj al Din Abd al Wahhab ibn Ali al-Subki, *Mu'Id Al-Ni'Am Wa-Mubid Al-Niqam: Al-Islah Al-Siyasi Wa-Al-Idari Fi Al-Dawlah Al-'Arabiyyah Al-Islamiyyah* (Beirut: Dar al-Hadathah, 1983)..

17. Al-Maqrīzī, Taqī ad-Dīn Aḥmad ibn ‘Alī (Cairo, 1356-1442) - *Kitāb al-awzān wa’l-akyāl al-sharī‘īyah*¹⁷
18. ‘Uqbani, Muhammad ibn Ahmad (Maghreb, d. 1466/7) - *Kitab Tuhfat al-nazir wa-ghunyat al-dhakir fi hifz al-sha’a’ir wa-taghyir al-manakir* (section on *ḥisba*)¹⁸
19. Yūsuf bin ‘Abdul Hādī, (al-Andalus, d. 1503) - *Kitāb al-ḥisba*
20. Al-Jarsīfī, Umar (Maghreb, late 13th c. - early 14th c.) - *Risāla fī l-ḥisba*
21. Anonymus Zaidī treatise¹⁹
22. Yūsuf Diyā’ al-Dīn (?) - *Aḥkām al-Iḥtisāb*²⁰

B) Mirrors for princes:

B. 1. Islamic mirrors for princes or manuals for the rightful behaviour of the prince and the government of the state

Although the distinction is narrow in some case, I have differentiated between proper “mirrors for princes,” addressed to rulers, and works of political administration (fiscal administration mainly). Among the “mirrors for princes” to mention:

1. Ibn al-Muqaffa’ (b. 720) - *Risalah fī al-sahabah*²¹ / *Kallilah wa Dimnah*²²
2. Ibn Qutaybah, ‘Abd Allah ibn Muslim (828-889) – ‘ *Uyun al-akhbar*²³
3. Nizām al-Mulk (Iran, 1018-1092) - *Siyāsāt-nama* or *Siyar al-muluk*²⁴
4. Kay Kaus (Kavus) Ibn Iskandar - *Qabus Namah* (1082)²⁵
5. Al-Ghazālī, (1058 – 1111) - *Naṣīḥat al-Mulūk*²⁶

¹⁶ Ibn Khaldun, *Muqaddimat Ibn Khaldun*.; Ibn Khaldun, *The Muqaddimah; an Introduction to History*, ed. Franz Rosenthal, trans. Franz Rosenthal (New York: Pantheon Books, 1958).; Ibn Khaldūn, *Ibn Khaldūn: Discours Sur L’histoire Universelle Al-Muqaddima*.; Ibn Khaldūn, *Al-Muqaddimah* (México: Fondo de Cultura Económica, 1977).

¹⁷ Taqī ad-Dīn Ahmad ibn Alī al-Maqrīzī, *Le Traité Des Poids Et Mesures Légales Des Musulmans [Kitāb Al-Awzān Wa’l-Akyāl Al-Sharī‘īyah?]*, trans. Antoine Isaac Silvestre de Sacy (Paris: Didot jeux, 1799).; French translation as an appendix of de Sacy’s translation of the *Shudhūr*: al-Maqrīzī, *Traité Des Monnoies Musulmanes*.

¹⁸ Muhammad ibn Ahmad Uqbani, *Kitab Tuhfat Al-Nazir Wa-Ghunyat Al-Dhakir Fi Hifz Al-Sha’a’ir Wa-Taghyir Al-Manakir*, ed. Shanufi Ali (Damascus: Institut français de Damas, 1967).

¹⁹ Ms. British Library.

²⁰ Mss. In the Bibliothèque Égyptienne (Taimūr collection).

²¹ Ibn al-Muqaffa, *Conseilleur Du Calife*, trans. Pellat Charles (Paris: G.-P. Maisonneuve et Larose, 1976).

²² ———, *Kalilah Wa-Dimnah* (Cairo: Dar al-Ma’arif, 1980).; Ibn al-Muqaffa, *Le Pouvoir Et Les Intellectuels, Ou, Les Aventures De Kalila Et Dimna*, trans. Khawam René R. (Paris: Maisonneuve & Larose, 1985).; Ibn al-Muqaffa, *Exemplario Contra Los Engaños Y Peligros Del Mundo*, trans. Giovanni da Capua (Zaragoza: Paulo Hurus, 1493).

²³ “Book of Useful knowledge;” Abu Muhammad Abd Allah ibn Muslim Ibn Qutayba, *‘Uyun Al-Akhbar*, ed. al-‘Adawi Ahmad Zaki (Cairo; Beirut: Al-Hay’a al-‘amma li-l-kitab, 1973).; Abu Muhammad Abd Allah b Muslim Ibn Qutayba, *Le Livre Du Maysir Et Des Flèches De Tirage Au Sort D’ibn Qutayba*, trans. Henin Jacqueline (Paris: Université Paris III, 1980).

²⁴ “Book of Government or Rules for kings;” Nizam al-Mulk, *The Book of Government, or, Rules for Kings: The Siyar Al-Muluk, or, Siyasat-Nama of Nizam Al-Mulk*, trans. Drake Hubert (Richmond, Surrey: Curzon Press, 2002).; Nizam al-Mulk, *Traité De Gouvernement*, trans. Roux Jean Paul, La Bibliothèque Persane (Paris: Sinbad, 1984).

²⁵ Translated in English as *A Mirror for Princes* by Reuben Levy (London, 1951).

²⁶ “Counselling for Kings,” al-Ghazali, *Ghazālī’s Book of Counsel for Kings (Nasīḥat Al-Mulūk)*..

*Dar ra'iyat dāshtan va-vilāyat rāndan*²⁷

6. Al-Turtushi, Muhammad, ibn Walid, called Ibn al-Rundakah (Tortosa, ca. 1059-ca. 1126) - *Siray al-Muluk*²⁸
7. Anonymus (Syria, 12th c.) - *Baḥr al-favā'id*²⁹
8. Ash-Shayzarī, 'Abdur Raḥmān bin Naṣr, (Syrian, d. 1193) - *Kitāb al-nahj al-maslūk fī siyāsāt al-mulūk*³⁰
9. Yūsuf ibn Qiz-ughli (Iraq, first half of the 13th century) - 1237
10. Ibn Jamā', Abū 'Abdallāh Muḥammad ibn Ibrāhīm (Ḥamāh, Syria, 1241-1333) - *Taḥrīr al-aḥkām fī tadbīr ahl (or millat) al-Islām*³¹
11. Ibn Nubāta al-Fāriqī, Muḥammad ibn Muḥammad, (Jazīra, Iraq, 1287-1366) - *Sulūk duwal al-mulūk*³²
12. Mūsā (II) ibn Ziyān al-'Abdwādī, Abū Hammū (Algeria, Sultan of Tlemcen 1352-1386) - *Wāsiṭat al-sulūk fī siyāsāt al-mulūk*³³
13. Ibn 'Arabshāh (14-15th c.) - *Fākihāt al-khulafā' wa-mufākahāt al-ẓurafā'* (c. 1448).³⁴
14. Ḥusayn Wā'iz Kāshifī (Bayhaq, western Khorasan, d. 1504-05) - *Futūwat-nāmah-yi sulṭānī*³⁵

Texts on public finance and administration, addressed not only to rulers but also to officials and administrators:

1. Abu Youssef Ya'koub (731-798) - *Kitāb-al-kharāj*³⁶
2. Abū 'Ubayd al-Qāsim ibn Sallām (774-837) - *Kitāb al-Amwāl*³⁷

²⁷ "On Governing and Exercising Authority;" section of the *Kīmīya*, persian version of the *Iḥyā'*, that, according to Hillenbrand is not in the latter but an earlier and shorter, only Islamic (no pre-Islamic or Persian references), version of the *Naṣīhat al-mulūk*. See Carole Hillenbrand, "A Little-Known Mirror for Princes by Al-Ghazālī," in *Words, Texts, and Concepts Cruising the Mediterranean Sea : Studies on the Sources, Contents and Influences of Islamic Civilization and Arabic Philosophy and Science : Dedicated to Gerhard Endress on His Sixty-Fifth Birthday*, ed. Rüdiger Arnzen and Gerhard Endress (Leuven: Peeters Publishers & Department of Oriental Studies, 2004), pp. 595 & 597.

²⁸ Arabic (1990 & 1994); al-Turtushi, "Lámpara De Príncipes [Siray Al-Muluk]," (Madrid: 1930).

²⁹ *The Sea of Precious Virtues (Baḥr al-favā'id). A medieval Islamic Mirror for Princes*, trans. J. S. Meisami, Salt Lake City, 1991; Introduced in Hillenbrand, "A Little-Known Mirror for Princes by Al-Ghazālī."

³⁰ *Via aperta et trita de regum administratione salutis publicae*.

³¹ Treatise on the duties and rights of Islamic rulers; edited, translated into German by Hans Kofler (*Islamica* 6, 349-414, 7, 1 ff., Leipzig 1934-35); Abhandlungen für die Kunde des Morgenlandes 23, part 6, 18-128, Leipzig, 1938.

³² Treatise on the duties on princes divided, according to Sartori, in six parts: their privileges and duties; duties to themselves; to their families; their servants and courtiers; the people; and the army.

³³ Edited in Tunis by Maḥmūd Kābādu and Muḥammad Bashīr al-Tuwātī (1862). Translated into Spanish as *El collar de Perlas*, by Mariano Gaspar (Zaragoza, 1899).

³⁴ Collection of fables mixed with the advice to princes, translation/adaptation of the Persian *Marzubān-nāma* by Sa'd al-dīn of Warāmīn (date unknown).

³⁵ Sufi text. Husayn Wāiz Kāshifī Sabzawārī, *The Royal Book of Spiritual Chivalry (Futūwat Nāmah-Yi Sultānī)*, ed. Seyyed Hossein Nasr, trans. Jay R. Crook (Chicago: Great Books of the Islamic World, 2000)..

³⁶ "Manual on Land Tax;" Abou Youssef Ya'koub, *Le Livre De L'impôt Foncier: (Kitāb El-Kharadj)*, trans. E. Fagnan (Paris: Librairie Orientaliste Paul Geuthner, 1921).. Economic parts translated in: Ya'qub Ibn Ibrahim Abu Yusuf, *Taxation in Islam*, trans. Ben Shemesh A. (London: 1965).; Complete English translation by Ali (1979); First Arabic edition printed in Cairo, 1885.

3. Qudāma b. Ja'far (864-932) - *Kitāb al-Kharāj wa Sinā'at al-Kitāba*³⁸
4. Abu Hanifah al-Nu'mān (or al-Un'mn) Ibn Muḥammad al-Isma'ili (Tunisia, 974) - *Da'aim al-Islam*
5. Abu Ja'far Ahmad Ibn Nasr al-Dawudi (Maghreb, d. 401/1012) - *Kitab al-Amwal*³⁹
6. Al-Māwardī (974-1058) - *Al-Aḥkām al-Sulṭānīyah / al-Tuhfah al-mulukiyyah fī al-adab al-siyasiyyah*⁴⁰
7. Ibn al-Farra', Abū Ya'lā Muhammad ibn al-Husayn, (990-1066) - *Al-Aḥkām al-Sulṭānīyah*⁴¹
8. Abū-l-Makārim As'ad ibn al-Khatīr ibn Mammātī (Egypt, 1147-1209) - *Kitāb qawānīn al-dawāwīn*⁴²
9. Fakhr al-dīn al-Rāzī (Ray, 1149-1210) - *Ta'rīkh al-duwal*⁴³
10. Ibn al-Ṭiqṭaqā (14th c.) - First part of the *Kitāb al-fakhrī*⁴⁴
11. Al-Nuwairī (Egypt, 1279-1332) - *Nihāyat al-arab fī funūn al-adab* (1332)⁴⁵
12. Ibn Qayyim al-Jawzīra (Damascus, 1292-1350) - *Al-Turuq al-hukmiyyah fī al-siyasah al-sharī'iyah*⁴⁶
13. Al-Dimashqī (14th c.) - *Nukhbat al-dahr*⁴⁷
14. Abu'l-Hasan Ali b. Uthman al-Makhzumi (d. 1384) - *Kitab al-Minhāb fī Ilm Kharaj Misr*⁴⁸
15. Abd al-Rahman Ibn Rajab (Baghdad, 1335-1392) – *Aḥkām al-Kharaj*

³⁷ Sallam Abu 'Ubayd al-Qasim ibn, *The Book of Revenue: Kitāb Al-Amwāl* (Reading: Garnet Publishing Ltd., 2005).;

³⁸ Qudāma Ibn Ja'far, *Book on Taxation and Official Correspondence = Kitāb Al-Kharaj Wa-Sinā'at Al-Kitāba*, ed. Sezgin Fuat; Amawi M.; Jokhosha A.; Neubauer E. (Frankfurt am Main: Institute for the History of Arabic-Islamic Science, 1983).; Qudāma Ibn Ja'far, *Kitāb Al-Kharadj*, ed. de Goeje M. J. (Frankfurt am Main: Institute for the History of Arabic-Islamic Science, 1992)..

³⁹ Critically edited by Najib Abdul Wahhab al-Fili. Translated into English (PhD, Exeter University, 1989).

⁴⁰ "The law of the Sultan" or "The status of government or the rules of public and administrative law"; Ali ibn Muhammad al-Mawardi, *Al-Aḥkam Al-Sultaniyyah Wa-Al-Wilayat Al-Diniyyah* (Cairo: al-Maktabah al-Tawfiqiyah, 1978).; Ali ibn Muhammad al-Mawardi, *The Ordinances of Government: A Translation of Al-Aḥkam Al-Sultaniyya W' Al-Wilayat Al-Diniyya*, trans. Wahba Wafaa Hassan, *The Great Books of Islamic Civilization*.; (Reading, UK: Center for Muslim Contribution to Civilization; London: Garnet Pub., 1996).; al-Mawardi, *Les Statuts Gouvernementaux Ou Règles De Droit Public Et Administratif*.

⁴¹ "The Rules of Government;" Abu Ya lā Muhammad ibn al Husayn Ibn al Farra, *Al-Aḥkam Al-Sultaniyyah*, ed. Fiḡi Muhammad Hamid (Cairo: Mustafā al-Babi al-Halabi, 1966).

⁴² "Status of the councils of state;" Account of the Egyptian government under the Ayyūbid sulṭān Ṣalāḥ al-Dīn.

⁴³ Treatise on politics according to Sarton.

⁴⁴ Shī'ah.

⁴⁵ According to Sarton, Part V (*on Politics*) of the second (*on Man*) deals with the: "Duties of the spiritual guides of the kings, governors, military commanders, judges, secretaries and chancellors, etc;" Kind of encyclopaedia that pretends to collect all the information needed by an educated administrator.

⁴⁶ "The legal methods in Islamic administration;" Ibn Qayyim al Jawziyyah, *Al-Turuq Al-Hukmiyyah Fi Al-Siyasah Al-Shar'iyyah*.; Muhammad ibn Abi Bakr Ibn Qayyim al Jawziyyah, *The Legal Methods in Islamic Administration [Al-Turuq Al-Hukmiyyah Fi Al-Siyasah Al-Shar'iyyah]*, trans. Ala'eddin Kharofa (Kuala Lumpur: International Law Book Services : Sole distributor, Golden Books Centre, 2000)..

⁴⁷ Probably the treatise on physiognomy in relation to government Sarton mentions.

⁴⁸ Partly published as *al-Muntaqa min Kitāb al-Minhāb fī Kharaj Misr*, Cairo: Supplement and Annales Islamologiques, 1986.

16. Al-Biruni (?)
17. Ash-Shaybani - *Kitan al Kasb* (?)
18. Al-Nu'mān (?)

B. 2. Christian Mirrors for Princes:

The treatises for the education of princes became common by the end of the 13th century. Sarton says they were inspired on Xenophone's *Cyropaedia*. However, both Persian and Islamic texts, in this respect, had to have also an influence in the development of the genre in Europe.⁴⁹ The translation of Aristotle's *Politics*, by Moerbeke in 1260, was also a key factor explaining this trend, although some were written much earlier, as it happened within French literature when, in the second half of the 14th century, Aristotle's *Politica* was translated into French.⁵⁰ To mention:

1. John of Salisbury - *Polycratus*, 1159
2. Godfrey of Viterbo, (12th c.) - *Speculum regum*
3. Gerald the Welshman, (13th c.) - Treatise on the education of princes
4. Boncompagni, (Florence, 13th c.) - *Oculus pastoralis*⁵¹
5. Unknown author (13th c.) - *Speculum perfectionis*, 1228
6. Pseudo-Aristotle (13th c.) - *De regimine regum* or *Secretum secretorum* (before 1250)
7. Vincent of Beauvais (second half of the 13th c.) - *Speculum maius*, 1244⁵²
De eruditione filiorum nobilium, c. 1250⁵³
8. Guibert of Tournay - *Eruditio regum et principum*, 1259⁵⁴
9. St. Thomas Aquinas & Tolomeo di Lucca - *De regimine principum*, c. 1274-1282⁵⁵
10. Giles of Rome, (Aegidius Romanus, 13th c.) - *De regimine principum*, Paris, 1270s⁵⁶

⁴⁹ Especially the first book of Xenophone's *Cyropaedia* dedicated to the education of Cyrus. Sarton traces earlier examples in Egyptian literature back to the 5th or even to the 3rd Dynasty. See Alan H. Gardiner: Egyptian grammar (p. 23, Oxford, 1927). Quoted in Sarton, *Introduction to the History of Science* (3 Vols.). (1947), vol. III, part I, p. 314.

⁵⁰ It contributed to the translation of other Latin mirrors for princes, among them those of John of Salisbury, Giles of Rome, Vincent of Beauvais, in addition to political texts as those of S. Agustin and Petrarca. Ibid. (1948), vol. III, part I, p. 577; and part II, p. 1277.

⁵¹ Similar work to Gerald the Welshman's treatise.

⁵² *Speculum Doctrinale*, containing a summary of views on law and government. García Lizana considers it anonymous.

⁵³ Written for Marguerite of Provence, wife of St. Louis. Edited by Arpad Steiner (Mediaeval Academy, no. 32, Cambridge Mass., 1938).

⁵⁴ For St. Louis. The treatise is more of an ethical type, dealing with the qualities and duties of princes. Sarton says to be largely based upon the Polycratus of John of Salisbury.

⁵⁵ Composed for the "young king" of Cyprus, Hugh II of Lusignan, and completed (c. 1274-1282) after Aquinas' death by his disciple Ptolomy of Lucques. Aquinas, *El Gobierno Monárquico: O Sea El Libro De Regimine Principum Escrito Por Santo Tomás De Aquino*.

⁵⁶ Composed for the future king of France, Philip le Bel. Translated into English in the second half of the 14th century by John of Trevisa (d. 1402). Ms 1374 in the BNE; Aegidius Romanus, *De regimine principum*, Barcelona: Nicolau Spindeler: a despes. de Joan Cacomà, 2 novembre, 1480 (Catalan); Roma: Stephanus Plannck, 9 mayo, 1482 (Latin); tr. by Juan García de Castrojeriz, Sevilla: Meinardo Ungut y Estanislao Polono: a exp. de Conrado Alemán y Melchor Gorricio, 20 octubre, 1494 (Castilian), etc.

11. Jacques de Cessoles - *Ludus scachorum*, c. 1290⁵⁷
12. Galvano de Levanto - "Moralized chess," 1295⁵⁸
13. Engelbert of Admont (Engelbertus Admontensis, d. 1331) - *De regimine principum*, a. 1290 / *Speculum virtutum*, a. 1298⁵⁹
14. Anonymous - *De Informatione principum*, c. 1298-1314⁶⁰
15. Anonymous - *De eruditione principum*⁶¹
16. Peré Belluga (Catalan) - *Speculum principium*
17. Álvaro Pelayo (o Pais) (Alvarus Pelagius, Castile, d. 1352) - *Speculum regum*, 1341-1344⁶²
18. Thomas Hoccleve (1370?-1450?) - *De Regimine principum*, 1411-12⁶³
19. Manuel II Palaeologos (Emperor of Byzantium) - *Speculum regale*⁶⁴
20. Francisco de Monzón - *Libro primero del Espejo del príncipe christiano* (Portugal, 1540-60)
21. Felipe de la Torre - *Institución de un rey christiano*, 1550s
22. George Gascoine - *The Steele Glas*, 1576
23. George Whetstone - *Mirour for Magestrates of Cyties*, 1584⁶⁵
24. Jerónimo Merola - *República original, sacada del cuerpo humano*, 1587
25. (Abbot) Smaragdus of St Mihiel , *Via regia* (edit. 1851)
26. Jonas, bishop of Orleans - *De institutione regia* (edit. 1930)
27. Hincmar of Rheims, archbishop - *De Regis persona et regio ministerio* (edit. 1852)
28. Sedulius Scotus - *Liber de rectoribus*, Liège (edit. 1906)
29. Marco Antonio de Camós y Requeséns - *Microcosmia y gobierno del hombre christiano, para todos los estados y qualquiera de ellos*, 1592
30. Rodrigo Sánchez de Arévalo - *Speculum humanae vitae*, 1600s
31. Simon Stevin (1548/49 – 1620) - *Livre de compte de prince à la manière d'Italie*, Leiden, 1608⁶⁶

⁵⁷ Part of what Murray describes as "chess moralities," which prototype was a short Latin tract, *Moralitas de scaccario* (Murray, 1913, pp. 560-61), according to Sarton better ascribed to the Franciscan John of Waleys (second half of the 13th c.). Translated into French (first half 14th c.), and then Italian, German and Dutch. In the 15th century into Catalan, English, Swedish and Czech.

⁵⁸ "Or Regimen principum in form of discussion of chess games," For Philippe IV le Bel.

⁵⁹ *De regimine principum*, edited by J. G. Th. Huffnagl: Engelberti opuscula philosophica (Ratisbon 1725). the latter dedicated to the sons of Albert I of Austria, rex Romanorum (1298-1309). See *Speculum virtutum*, edited by Bernard Pez: *Bibliotheca ascetica* (Ratisbon, 1720).

⁶⁰ Translated into French by Jean Golein (c. 1320-1403); Often confused with *Regimen principum* by Giles of Rome.

⁶¹ Contemporary to Giles of Rome's, probably composed by William Pérault, Dominican.

⁶² Written for the king Alfonso XI of Castile. Also called *Collyrium* and completed at Tavira (Algarve) in 1344.

⁶³ Derived from Giles of Rome's Mirror, from the *Secretum secretorum*, and from Jacques of Cessoles' moralizing chess guide.

⁶⁴ Composed for his son Joannes after his abdication.

⁶⁵ This seems to be a text closer to the *Hisbah* literature.

⁶⁶ Written at the request of Maurice of Nassau, prince of Orange, and dedicated to Sully, minister to Henri IV.

32. Baronus, Stepanus (¿?) - *Tractatus de regimine principum*

C) Handbook for Merchants

C. 1. Islamic Handbooks for Merchants

1. Al-Dimashqi (12th c.) - *Kitāb al-Ishāra ilā maḥāsin al-tijāra*⁶⁷
2. Al-Jāḥiz, ‘Amr ibn Baḥr (776/7-868/69) - *Kitāb fī al-tujjār wa-ḍamm ‘amal al-sultān*⁶⁸
*Kitāb al-tabaṣṣur bi’l-tijāra / Les livres de avarès*⁶⁹
3. Abū-l-Faraj (Siria, 1226-1286) - *Tēgērath tēgērāthā*⁷⁰

C. 2. Some Christian Handbooks for Merchants:

1. Stephen of Fougères (bishop of Rennes, d. 1178), *Le livre des manières*⁷¹
2. Venetian commercial manual, Acre, 1260⁷²
3. Francesco Balducci Pegolotti, *La pratica della mercatura*, (1310-1340)⁷³
4. Catalan commercial manual, 14th c.⁷⁴
5. John Pryse, *Treatise on currency*, 1553.⁷⁵

⁶⁷ *Kitāb al-Ishāra ilā maḥāsin al-tijāra wa ma’rifā al-jayyid al-a’raḍ wa radīhā wa ghushūsh al-mudallisīn fīhā* (Book explaining the benefits of commerce and the knowledge of good and bad qualities [of wares] and the falsification of counterfeiters). See appendix III.

⁶⁸ “A Book in Praise of Merchants and in Dispraise of the Work of the Sultān.” A short fragment remained in the German translation by O. R. (Escher), Stuttgart, 1931, pp. 186-88.

⁶⁹ The former attributed to Jāḥiz but not of him. In English translation by R. S. Lopez and I. W. Raymond, *Medieval Trade in the Mediterranean World*. New York, 1955, pp. 28-29. In French translation by Ch. Pellat, *La milieu baṣrien de Jāḥiz*. Paris, 1953, pp. 237-39. Later published in French (1951)

⁷⁰ *Mercatura mercaturarum*. Derived from the ‘Uyūm al-ḥikma of Ibn Sīnā. Sarton, *Introduction to the History of Science* (3 Vols.). (1931), vol. II, part II, p. 977.

⁷¹ See Ch. V. Langlois: *La vie en France au Moyen âge d’après les moralistes du temps* (2nd, ed., 12, 16, Paris 1926). Commented in Ibid. (1931), vol. II, part II, p. 799. In the following page Sarton speaks of a *Livre des métiers* by the same Stephen Boileau, dealing customs relative to the guilds and trades of Paris.

⁷² (Jacoby, 1986); Constable, *Housing the Stranger in the Mediterranean World: Lodging, Trade, and Travel in Late Antiquity and the Middle Ages.*, p. 244.

⁷³ Allan Evans (ed.), *Medieval Academy of America*, Cambridge, MA, 1936

⁷⁴ Gual Camarena, 1981.

⁷⁵ Archbold, 1898.

Appendix III – Collection of texts dealing with monetary issues in relation to the Islamic commentary tradition of Aristotle

* Greek Philosophers

1. Aristophane (450-385 B.C.)
The Frogs, first known mention to the so-called Gresham's Law⁷⁶
2. Plato (427-347 B.C.)
The Republic - Money as a token⁷⁷
The Laws - Money as legal tender within the country⁷⁸
3. Xenophon (427-355 B.C.)
Oikonomiká – “household administration”⁷⁹
On Revenue – Silver does not depreciate when supply increases⁸⁰
4. Antístenes - *Oikonomiká*⁸¹
5. Aristotle (384-322 B.C.)
Politics – Historical discussion about the origins of money as medium of exchange (Book 1, Chapter 9)⁸²
Nicomachean Ethics – Justice in matters of exchange, money as *nomos* and as a measure of value (Book 5, Chapter 5)⁸³
Oikonomiká – Books on the administration of the household (pseudo-Aristotle)⁸⁴
6. Bryson (?)

⁷⁶ "Nous avons souvent observe que, dans cette ville, on en agit avec les bons et honnêtes citoyens, comme à l'égard de l'ancienne et de la nouvelle monnaie. Car nous ne voulons absolument point de la vieille monnaie, quoiqu'elle soit sans alliage et la meilleure de toutes, comme on peut en juger par les pièces qui sont les seules parfaitement frappées, et qui, partout, chez les Grecs et chez les étrangers, sont jugées meilleures au son même; mais nous préférons la monnaie d'airain nouvellement frappée et qui ne vaut rien du tout." Part of Aristophane's *Grenouilles*, René Gonnard, *Histoire Des Doctrines Monétaires Dans Ses Rapports Avec L'histoire Des Monnaies* (Paris: Librairie du Recueil Sirey (société anonyme), 1935), p. 29.

⁷⁷ Plato, *La República*.

⁷⁸ "Legal tender among themselves but valueless elsewhere;" Plato, *The Laws*, Bury, R. G. (trans.), Harvard: Harvard University Press, 1952 (book V, p. 742). Quoted in Gordon, "Aristotle, Schumpeter, and the Metalist Tradition.", p. 612.

⁷⁹ Essid, "Introduction.", pp. 8-9. Other works on economic issues by Xenophon are: *Memorabilia*, *Cyropaedia*, *Hiero*, *Poroi*, and *Ways and Means*. Baek, *The Mediterranean Tradition in Economic Thought.*, pp. 52-59.

⁸⁰ Xenophone, *On Revenues* (translation by H. G. Dakyns), January, 1998 [Etext #1179], Project Gutenberg Etext, available in the web: <http://www.gutenberg.org/dirs/etext98/rvnue10.txt> (04/11/2007)

⁸¹ Part of the Greek tradition on *oikonomiká*, “books on household administration.” It seems that Plato commented also on the issue. See some of the texts listed by Diógenes Laercio, which includes another text “on wealth,” commented in García Valdés, "Introducción.", pp. 232-33.

⁸² Aristotle, *La Política* (Madrid: Editora Nacional, 1981), p. 63. English edition used by Gordon: Ross, W. D. (ed.), *The Works of Aristotle* (London: Oxford University Press, 1921)

⁸³ ———, *Ética a Nicómaco* (Madrid: Alianza Editorial, 2001). English edition used by Gordon: Ross, W. D. (ed.), *Ethica Nichomachea* (London: Oxford University Press, 1915)

⁸⁴ ———, *Aristote. Le Second Livre De L'economique [Single Works. Oeconomica. Greek]* (Leyden: 1933); Pseudo-Aristotle, *Económicos*.

Tadbîr al-manzil (domestic or household administration) – Synthesis of Aristotelian conceptions of money.⁸⁵

*** Islamic Scholars and texts**

1. Ibn Sînâ o Avicenna (980-1037)
Kitāb al-Tadbîr (Book of the Administration of the household)⁸⁶
2. Ad-Dimashqî (Syria, 11th c.)
Kitāb al-Ishāra (Book of the Beauties of commerce or Praise of commerce)⁸⁷
3. Miskawayh (Rayy, 932 – 1030)
Tahdhîb al-Akhlāq (Ethical Treatise)⁸⁸
4. Al-Ghazālî (Tus, 1058 – 1111)
Ihyā' al-'Ulûm ad-Dîn (The Revival of the Sciences of Religion, 1101)⁸⁹
 - a. Vol. II – On worldly Usages.⁹⁰
 - (On the different ways of earning a living, Vol. II, chapter 3 (13))⁹¹
 - *Kitāb al-Halāl wa al-Harām* (Book of the Lawful and Unlawful practices; Vol. II, chapter 4 (14))⁹²
 - *Kitāb al-amr bi-al-ma'rûf wa-al-nahy 'an al-munkar* (Commanding right and forbidding wrong) (Vol. II, chapter 10 (19))⁹³
 - b. Vol. IV – *On Tauba* (Repentance).
Possessions, family and the right uses of wealth. (Vol. IV, chapter)⁹⁴
Naṣīḥat al-Mulūk, (Counselling for Kings)⁹⁵
5. Ibrāhîm Ibn Da'ūd (Abraham ben David ha-Levi), (Cordova 1110, Toledo 1170-80)
Kitāb al-'aqīdah al-raft'ah (the sublime faith) (1168)⁹⁶
6. Ibn Rushd (Cordoba, 1126-1198)

⁸⁵ Bryson, "Le Livre De Bryson Sur L'administration Domestique [Kitāb Brsîs Fî Tadbîr Al-Rajul Li-Manzilihi]."

⁸⁶ Ibid. (French/Arabic edition)

⁸⁷ Mss. Dated in 570/1175; Abû al-Fadl al-Dimashqî, *Al-Ishâra Ilâ Mah:Âsin Al-Tidjâra* (Alexandria: Maktaba al-kuliât al-Azahrâh Huseyn 'Ambâbî wa sharikâhu, 1977).; Abû al-Fadl al-Dimashqî, *Eloge Du Commerce* (Tunis: Edition Media Com, 1995). (French/Arabic edition).

⁸⁸ Miskawayh, *Traité D'ethique*. (French Edition)

⁸⁹ al-Ghazali, *The Revival of Religious Sciences.*, (portions).

⁹⁰ Al-Ghazali, *Imam Gazzali's Ihya Ulum-Id-Dîn*. (English Edition, Vol. II)

⁹¹ Ibid., (Vol. II) pp. 53-74. (English edition)

⁹² English & French editions: al-Ghazali, *Le Livre Du Licite Et De L'illicite (Kitab Al-Halâl Wa-L Harâm).*; Al-Ghazali, *Imam Gazzali's Ihya Ulum-Id-Dîn*. (Vol. II) pp. 75-108.

⁹³ Al-Ghazali, *L'obligation D'ordonner Le Bien Et D'interdire Le Mal (Livre Xix, Vol. Ii De L'ihyâ' 'Ulûm Al-Dîn)*. (French edition)

⁹⁴ al-Ghazali, *The Revival of Religious Sciences.*, pp. 162-169 (portions, English edition)

⁹⁵ ———, *Ghazâlî's Book of Counsel for Kings (Nas:Îh:At Al-Mulûk).*.. (English edition)

⁹⁶ According to Sarton, the third section of which, the "medicine of the soul" deals with practical philosophy, ethics, economics and politics.

- i. *Bidāya al-mujtahid wa nihayat al-muqtasid* (1168) (Manual of Jurisprudence).⁹⁷
Kitāb aṣ-Ṣarf (Book on currency changes).⁹⁸
- ii. *Middle Commentary on Nicomachean Ethics* (1177)⁹⁹
- ii. *Commentary on Plato's Republic*¹⁰⁰
7. Nāṣir al-dīn al-Ṭūsī (Ṭūs, Khurāsān, 1201-1274)
Akhlāq-i-Nāṣirī (Nāṣirian ethics, persian), b. 1256.¹⁰¹
8. Abū-l-Faraj (1226-1286)
Ḥēthābhā ḥekhmēthā (Cream of Wisdom)¹⁰²
9. Ibn Taymīyah (Ḥarran 1263 – Damascus 1328)
 - i. *Ḥisbah fī al-Islam* (Ḥisbah in Islam)¹⁰³
 - ii. *Al-Siyasat al-Sharī'iyat fī Islah (Iṣlāḥ?) al-Rai wa'l-Raiyah* (Politics of Islamic Jurisprudence, or Divine Path, in the restoration (reform) of Opinion and Views (?); usually translated as "Public And Private Laws in Islam")¹⁰⁴
 - iii. *Majmū Fatāwā Saikh al-Islām* (compilation of Ibn Taimīyah's religious opinions)¹⁰⁵
10. Al-Ījī, (Iran, d. 1355)
Al-Shāhīya fī 'ilm al-akhlāq (a section on domestic economy)¹⁰⁶
11. Muḥammad Ibn Maḥmūd al-Āmilī (d. c. 1352)
Nafā'is al-funūn fī 'arā'is al-'uyūn, 1334-42, (section II on domestic economy)¹⁰⁷
12. Ibn Khaldūn (Tunis, 1332 – Cairo, 1406)
Al-Muqaddimah (Section on coins and the minting house)¹⁰⁸
13. Al-Maqrīzī (Cairo, 1356-1442)

⁹⁷ Ibn Rushd, *The Distinguished Jurist's Primer: Bidāyat Al-Mujtahid.*; (English edition)

⁹⁸ (Section of the *Bidāya*) Ibid.

⁹⁹ The Arabic copies are lost. There are only copies of the book in Hebrew and Latin. The Latin translation by Hermann the German in 1240 of Latin Aristotle, not edited. I used the support of Berman's and Harvey's works. Berman edited in 1999 the Hebrew translation of 1321-22 by Samuel ben Judah of Marseilles. Berman, "Ibn Rushd's Middle Commentary on the Nicomachean Ethics in Medieval Literature", p. 295.

¹⁰⁰ Ibn Rushd, *Averroes Commentary on Plato's "Republic"*. (English Edition)

¹⁰¹ In Arabic *Risāla fī-taḥqīq al-'ilm* (which may be translated as "Treatise of the truth of science"). at-Ṭūsī, *The Nasirean Ethics*.

¹⁰² Syriac summa. Aristotelian Encyclopedia that, according to Sarton, includes a fourth part on ethics, economics, politics and physiognomy.

¹⁰³ Ahmad b Abd al-Halim Ibn Taymīyah, "Traité Sur La Hisba," *Revue des études islamiques* 52 (1984).; Ibn Taymīyah, *Public Duties in Islam: The Institution of Hisbah.*; Ibn Taymīyah, *Al-H: Isbat Wa Mas'ūliyat Al-H: Ukūmat Al-Islāmīyah.*;

¹⁰⁴ Ahmad ibn Abd al-Halim Ibn Taymīyah, *Ibn Taimiyya on Public and Private Law in Islam : Or Public Policy in Islamic Jurisprudence*, trans. Omar A. Farrukh (Beirut: Khayats, 1966). (English edition)

¹⁰⁵ Ibn Taimīyah, *Majmū Fatāwā Saikh al-Islām*, Cairo: Maṭābi' al-Riyāḍ, 1963.

¹⁰⁶ Printed with 3 commentaries (2vols. Constantinople, 1823-24).

¹⁰⁷ *Nafā'is al-funūn*. Litographic edition (2 vols., 512 p., Teheran, 1898-99).

¹⁰⁸ See Appendix II.

- i. *Ighāthah al-Ummah bi-Kashf al-Ghummah* (Assisting the nation investigating the depression)¹⁰⁹
 - ii. *Shudūr al-‘Uqūd fī Dhikr al-Nuqūd*¹¹⁰
 - iii. *Kitāb al-awzān wa’l-akyāl al-sharī‘īyah*¹¹¹
14. Jalāl al-dīn Muḥammad ibn As‘ad al-Dauwānī (1427 - 1501)
*Akhlāq-I-Jalālī*¹¹² or *Lawami’ al-Ishraq fī Makarim al-Akhlaq*¹¹³
15. Ḥusain-I-Kāshifī (end 15th, d. 1504-05)
Akhlāq-I-Muhsinī (1494-1495)¹¹⁴

¹⁰⁹ French and Arabic edition, partial English translations: al-Maqrīzī, *Ighāthah Al-Ummah Bi-Kashf Al-Ghummah*.; Wiet, ed., *Le Traité Des Famines De Maqrīzī*.; Partial translations in English: Tomass, "Al-Maqrīzī's Book of Aiding the Nation by Investigating the Depression of 1403-06: Translation and Commentary."; Allouche, *Mamluk Economics : A Study and Translation of Al-Maqrīzī's Ighathah*.

¹¹⁰ Latin, French and Arabic editions: al-Maqrīzī, *Historia Monetæ Arabicæ E Codice Escorialensi Cum Variis Duorum Codicum Leidensium Lectionibus et Excerptis Anecdotis*[*Shudūr Al-‘Uqūd Fī Dhikr Al-Nuqūd*].; Antoine Isaac Silvestre de Sacy and Taqī ad-Dīn Ahmad ibn Alī al-Maqrīzī, "Traité De Monnoies Musulmanes [*Shudūr Al-‘Uqūd Fī Dhikr Al-Nuqūd*]," *Magasin Encyclopédique* II & III, no. 6 & 1 (1797).; and al-Maqrīzī, *Thalath Rasa'il (I) Al-Nuqūd Al-Islamiyah*.;

¹¹¹ See appendix II.

¹¹² Inspired by the *Akhlāq-i-Nāsirī* of Nāṣir al-dīn al-Ṭūsī (1201-1274).

¹¹³ Muhammad ibn Asad Dawwaini, *Practical Philosophy of the Muhammadan People : Exhibited in Its Professed Connexion with the European, So as to Render Either an Introduction to the Other : Being a Translation of the Akhlak-I Jalaly*, trans. Thompson W. F, 1st in Pakistan. ed. (Karachi: Karimsons, 1977).

¹¹⁴ Husayn Wāiz Kāshifī Sabzawārī, *Akhlāk-I Muhsinī, or, the Morals of the Beneficent*, trans. H. G. Keene (London: W.H. Allen, 1867). Inspired by the *Akhlāq-i-Nāsirī* of Nāṣir al-dīn al-Ṭūsī (1201-1274).

Appendix IV – System of transliteration Arabic-Latin alphabet¹¹⁵

Arabic	Latin
ء	,
ب	b
ت	t
ث	th
ج	j
ح	h
خ	kh
د	d
ذ	dh
ر	r
ز	z
س	s
ش	sh
ص	ṣ
ض	ḍ
ط	ṭ
ظ	ẓ
ع	‘
غ	gh
ف	f
ق	q

Arabic	Latin
ك	k
ل	l
م	m
ن	n
ه	h
و	w
ي	y
اَ	ā
إِ	ī
أُ	ū
ى	À
Diphthong	ay / aw
ة	h / t

¹¹⁵ English (Library of Congress / Index Islamicus) <http://www.lib.umich.edu/area/Near.East/lcromanization.pdf>
(29-09-05)